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COSMIC FORCES

SECOND OF TRILOGY

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MY FRIEND, THE WISE OLD INDIAN SAGE, CHIEF PETER WAPATO
OF THE CHELAN INDIANS, STATE OF WASHINGTON

He tells us when the mountains were raised. His picture at the age of 90.

COSMIC FORCES OF MU

VOLUME TWO

BY

COLONEL JAMES CHURCHWARD

AUTHOR OF
"THE LOST CONTINENT OF MU"
"THE CHILDREN OF MU"
"THE SACRED SYMBOLS OF MU"

ILLUSTRATED

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NEW YORK

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This work is dedicated to my dear friends
Mr. and Mrs. Woodford T. Stewart
J. C.

INTRODUCTION

My first book on the Cosmic Forces related especially to the Primary Forces which are governing the movements of all celestial bodies throughout the universe. That section was selected for a commencement, as it enabled me to show the origin of these Forces and the manner in which they are working.

This volume is devoted to the Cosmic Forces as they affect the earth. In my first volume on the Cosmic Forces I ended with the addenda: a synopsis of "The Birth of the Earth." I shall commence this volume by giving a full and illustrated chapter on "The Birth of the Earth." The illustrations make it more comprehensible. The earth is only a tiny twig on a big branch of an immense tree. Therefore she does not get her forces direct from the Source of the Cosmic Forces. What she requires is portioned out to her by her Sun. The Sun is her transmitter, so that the Earthly Cosmic Forces are of a secondary nature. The Sun supplies the earth with her portion as arranged by Nature. She receives this volume, rearranges it and passes it out through her hard crust to supply the requirements of Nature.

To show intelligently how the earth manipulates what is given to her by the Sun, it is necessary to see her construction. This I am attempting to do by describing her Birth, commencing when she was only a Nebula, a mass of circulating, whirling gases like the great Nebulae in the constellation Andromeda.

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PART I

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COSMIC FORCES

SECOND OF TRILOGY

CHAPTER I

THE BIRTH OF THE EARTH

I WILL commence where I left off in my synopsis of the Birth of the Earth, which appears at the end of my first book on the Cosmic Forces.

THE COOLING GASES

In considering the cooling of the original Gases, whence the earth took her solid form, it will be necessary to go back beyond all geological records into a speculative time, where only various phenomena show up to sustain any theory. I am compelled thus to go back to enable me to determine, as far as possible with reason, what the actual

CROSS SECTION OF AN ADVANCED NEBULA
The Great Centripetal Force Working the Gases to a Center.

original form of the earth was, previous to the time when geology commences to record her development.

Geology starts at a particular point in the earth's development, not at the beginning; nor does it pretend to do so because, beyond where it commences, it is purely speculative. Geologists have endeavored in their writings to confine themselves as far as possible to facts rather than speculation, unfortunately not always with success; they have theorized and fallen into error.

All the primary rocks of the earth's crust which are geologically called Archaean Rocks, show by the form of their crystallizations that they cooled from fusion[1] and that *the cooling was very slow.* This slow process is demonstrated by the *very large size* of the Crystals, and their positions one to the other.

Coarse crystalline structures are developed today, where the process of cooling is very slow. I shall treat the cooling and solidifying of the gases in three stages:

1. From a gaseous to a molten state.
2. From a molten to a hot solid.
3. From a hot solid to atmospheric temperature.

To arrive at this original state of the earth I have to call to my aid the science of Chemistry. Chemical Analyses are the undoing of previous creative chemical actions called Syntheses. A chemical analysis is therefore the untying of a previously made chemical knot. The last chemical analysis, or the untying of the last chemical knot, must therefore bring matter down to its original form. A chemical analysis, however, brought about by the aid of the common acids, does not untie the last chemical knot, for it still leaves the matter in solid form; so we must take a higher branch of chemistry for further progress. I will now leave the acids and employ Thermo-Chemistry. Thermo-Chemistry is where either the synthesis or the analysis is brought about through the agency of the Heat Force.

---

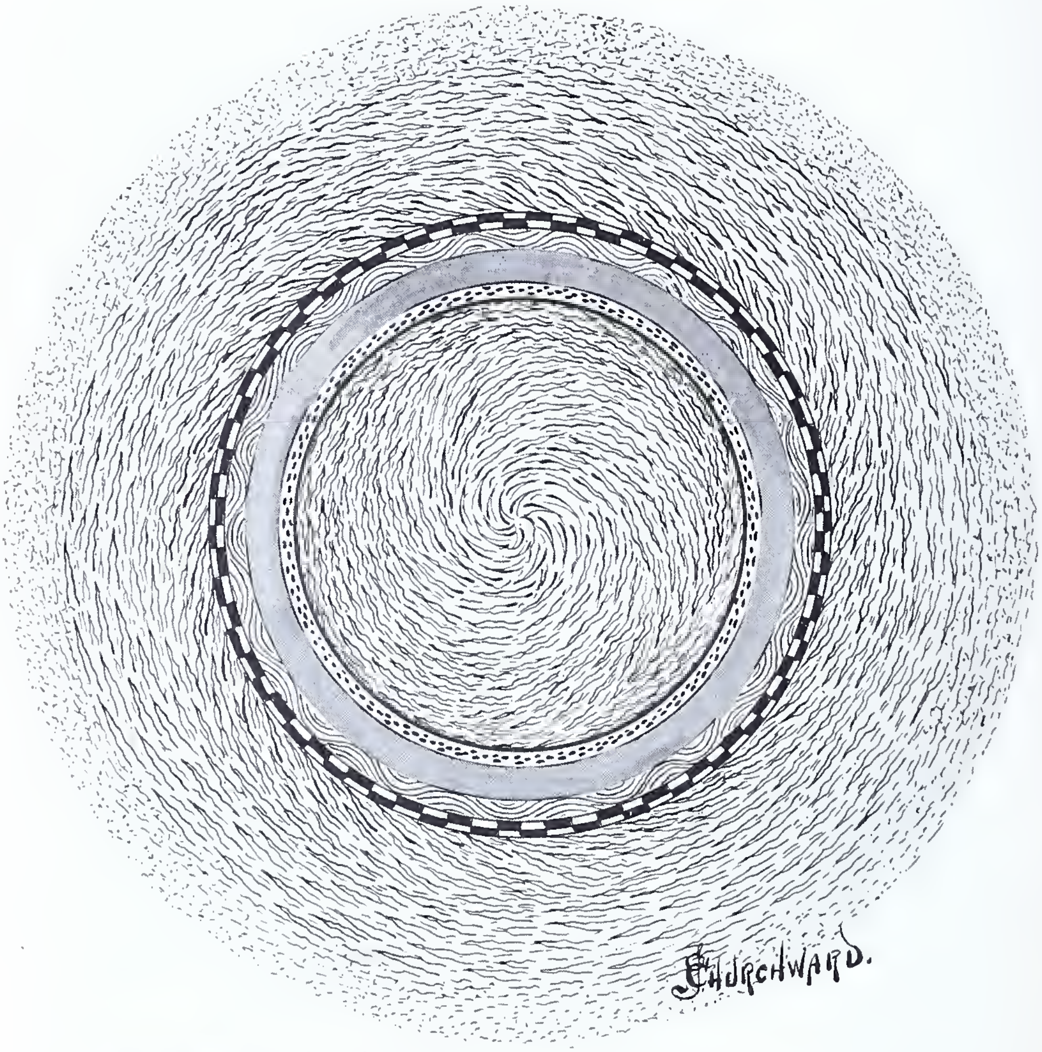
[1] This does not include any of the Archaean Rocks which have been metamorphosed.

By the aid of a sufficient volume of this Force we turn the elementary solids into their original form, *Elementary Gases*. By withdrawing the volume of the Heat Force and again cooling the gases, they once more return to solids, thus demonstrating by untying and then re-tying the chemical knots that the original form of the elements now composing our earth's solid crust *were gases*.

The only force capable of turning the scattered gases into a spherical form is a Centripetal Force, and as a corroboration of the existence of this great Centripetal Force out in space, I herewith give a photograph of a Nebula forming a world with a moon.

THE GREAT NEBULA IN ANDROMEDA

The lines in this picture are distinctly centripetal, the picture is so clear that the lines which the gases are taking



Central Molten Matter.
Primary Rock Granite.
Secondary Rock Gneiss, formed.
Secondary Rock Gneiss, forming.
Gases.

CROSS SECTION AT THE EQUATOR OF THE FORMING EARTH are easily followed showing them to be working to a center.

Scientists have asserted that the arm of this Nebula is a portion that is being *thrown off,* and that this nebula is a forming star. One of the two assertions is certainly wrong. If the arm is being *thrown off* then a Centrifugal Force is working, not a Centripetal Force. This would eventually break up the Nebula and scatter the gases composing it.

To me it seems that the ball of gases at the end of the arm is a forming satellite, that eventually the arm will break, a portion going to the satellite, the balance to the forming star; or maybe the star will get it all.

Cross Section of Forming Earth

The Great Centripetal Force which was molding the earth caused the gases to become somewhat divided at the time of becoming molten. The heavier gases apparently were drawn towards the center. With them, however, were carried vast volumes of the lighter gases, as is shown by the presence of oxygen in all rocks. A complete separation between the hardening elementary gases and the non-hardening gases was not made. In cooling, a neutral zone was struck in the center of the gases, and along this zone cooling and solidifying commenced. The initial crust of the earth was therefore not on the outside of *all* the gases, but in their center. On the outside of the initial crust, light non-solidifying gases were not alone, for there were vast quantities of heavy solidifying gases as well, as is shown by the gneiss rocks which were subsequently laid down on the initial crust. The gneiss rocks I have called the *Secondary Archaean Rocks.* My reason for calling them Secondary Archaean Rocks is that, as they cooled from fusion they are Archaean, and as they were laid down on the primary, they are Secondary.

Whether it was the effect of the essence surrounding the gases, or the separation and division of the gases themselves; whether it was the exertion exercised by the great Centripetal Force; whether it was chemical influences only, or a combination of them all, which caused the elementary gases to form chemical compounds; I am not at the present time prepared to say, but, whatever the cause or causes were, some of the gases went into chemical combinations, then cooled and solidified.

My assertion that the earth commenced to solidify in the center of her nebula, instead of on the outside or from the center, may, to some, seem illogical and impossible; yet, this was the only possible way the gases could commence to solidify, for it was a centripetal force which was the agent bringing her into form, out of chaos.

All centripetal forces produce vortices. The vortex in this case was in the center of the gases, which means that the gases from the vortex point must take an outward

LIST OF ELEMENTS

Aluminum
Antimony
Argon
Arsenic

Barium
Bismouth
Boron
Bromine

Cadmium
Caesium
Calcium
Carbon
Cerium
Chlorine
Chromium
Cobalt
Colombrium
Copper

Erbium

Fluorine

Gadolineum
Gallium
Germanium
Glucinum
Gold

Helium
Hydrogen

Indium
Iodine
Iridium
Iron

Krypton

Lanthanum
Lead
Lithium

Magnesium
Manganese
Mercury
Molybdenum

Neodymium
Neon
Nickel
Nitrogen

Osminum
Oxygen

Palladium
Phosphorus
Platinum
Potassium
Proseodymium

Radium
Rhodium
Rubidium
Ruthenium

Smarium
Scandium
Selenium
Silicon
Silver

Sodium
Strontium
Sulphur

Tantalum
Tellurium
Terbium
Thallium
Thorium
Thulurium
Tin
Titanium
Tungsten

Uranium

Vanadium

Xenon

Ytterbium
Yttrium

Zinc
Zirconium

course or thrust—while on their way outward they were met by gases under control of the Centripetal Force which was driving them inward—where the two sets of gases met in equal force it formed the Neutral Zone necessary for the commencement of solidifying. Along this Neutral Zone the first initial crust was formed—then commenced the building up. The inside molten matter as it was formed built up against the initial crust on the outside. The stratification of the gneiss rocks is proof that they were laid down on a crust already formed, so that the earth's crust was built up on the two sides of a central line.

It is reasonable to assume that the method in which the gases cooled and solidified was as before stated. To distinguish the lighter gases that did not go to form the Primary rocks, I shall hereafter use the term, *non-solidifying gases,* and those that went to form the primary rock granite, the term, *solidifying gases.*

During the formation of the granite rock, some of the non-solidifying gases went into chemical combinations with each other and formed *highly explosive volcanic gases.* These volcanic gases were encased in the granite rock. They could not escape without puncturing and bursting open the crust. The crust for some considerable time, however, was not in a *condition* where it could be punctured or burst open by the gases.

As the granite rocks were being formed out of one set of gases, so the volcanic gases were at the same time being formed out of another set of gases. They were created within the forming granite rock, so that when the granite rock was fully formed it was honeycombed with huge chambers filled with the most powerful and explosive kinds of gases.

It may be questioned, by those who do not take the trouble to think, that such a condition existed in the foundation rock of the earth's crust.

Since vast volumes of these explosive gases were contained in the granite rock as it was forming, and were unable to escape, *space was necessary for them.* These non-solidifying gases could not be distributed evenly throughout the cooling and solidifying granite because *that* would have prevented the formation of the rock, as naturally it would have prevented the adhesion of the crystals one to the other. Had the adhesion of the crystals been prevented —*no rock could have been formed.* Masses of fine sand-like crumbling matter is all that could have been formed. The non-solidifying gases collected in bulk, in the form of huge gas bubbles, and the rock formed around them. Thus these huge bubbles had their allotted space. When the rock was fully formed, these bubbles became huge chambers in the cooling rock, similar to the blow-holes in steel and cast iron when the free gases have not been cleared out of the furnace charge before casting. Hereafter I shall designate these gas pockets as the *Old Archaean Gas Chambers.*

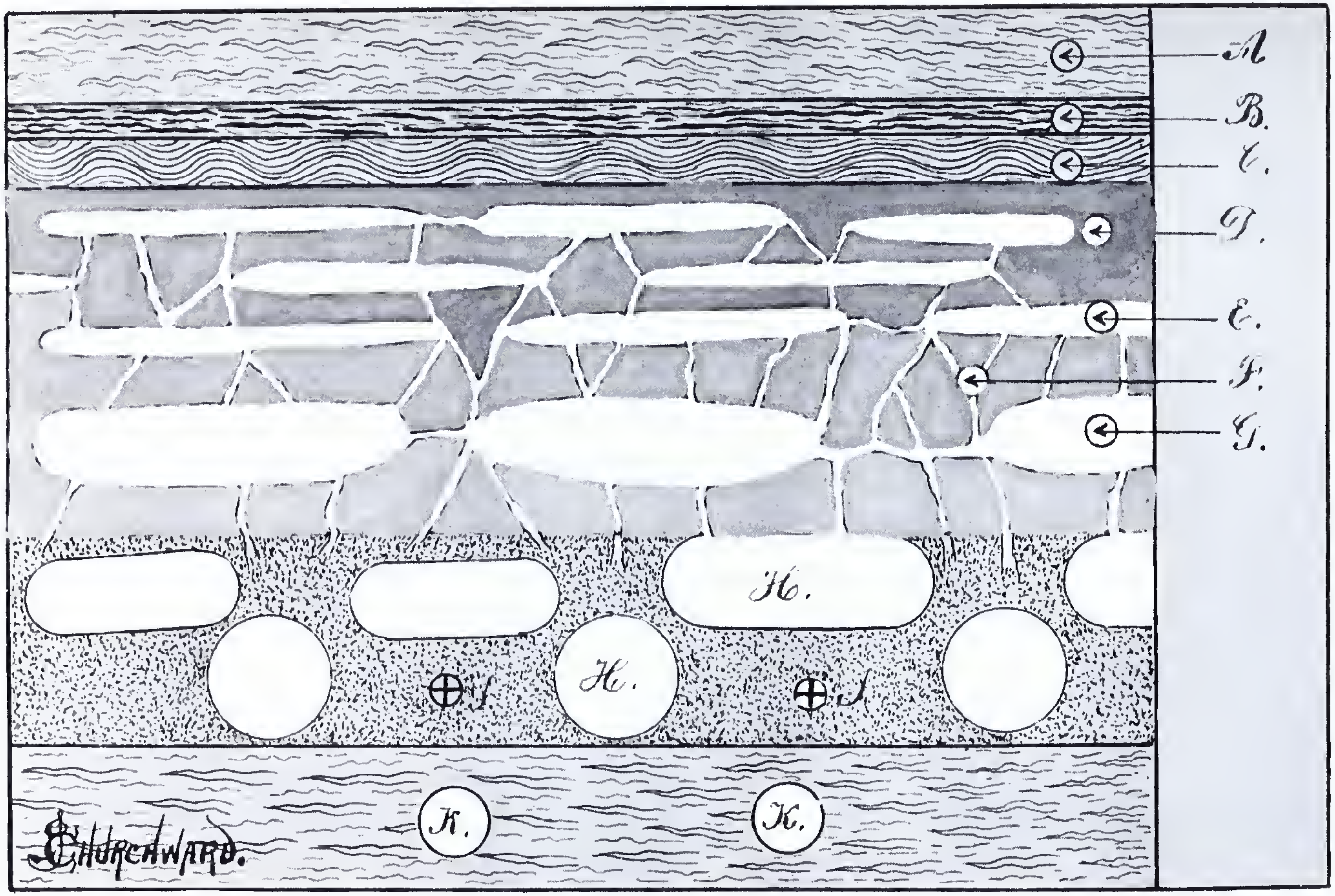
It is thus shown that the primary or foundation rock of the earth was completely honeycombed with huge chambers filled with the most powerful and explosive volcanic gases.

EXPLANATION

A. Light outside gases that will form the waters and the atmosphere.

B. Molten matter forming the outside layer of gneiss rocks. The balance of the outside solidifying gases.

C. The first gneiss rock formed upon the granite which is now solidified, but very hot. This matter is shown in a molten state, flowing along and over the Section C. As the matter is molten and the earth revolving on her axis, it causes the matter to *flow,* so that layer upon layer of these rocks were formed. These layers became our stratified gneiss rocks. The stratifications were formed by the material being deposited in layers. Two facts prove it: the rocks are stratified; and each rock has a somewhat different chemical composition from the preceding one, thus showing that the chemical union of the elements forming one rock was made in advance of another.



THE FORMING OF GAS CHAMBERS
Why the Gneiss Rocks were flexed and waved.

D. The earth's primary rock granite. On the outside it is shown as solid, but very hot. The temperature of the rock from the outside to the inside molten matter is shown by the shading. The shading becomes lighter and lighter as the rock becomes hotter and hotter, until the solidifying molten matter is shown.

E. The Chambers formed by the non-solidifying gases. They become flattened and elongated by a rolling process, caused by the earth's revolving and the Central Centrifugal Force. They pass through the roll; the hard solidified material above forms the upper roll and the molten matter below, pressed against the Chamber by the Centrifugal Force, forms the lower roll.

F. Cracks and fissures in the granite rock, caused by contractions in cooling.

G. A series of chambers being formed, rolled and flattened out.

H. Huge gas bubbles forming in the molten matter. When the molten matter solidifies these will become chambers.

I. Gases which have become molten matter. This'will solidify and add thickness to the granite rock.

K. The central gases of the earth, extending from the molten matter to the earth's center.

No estimate of the size of the Old Archaean Gas Chambers can be given. They varied in size. We can, however, tell approximately the size of some of them, by measuring the area of a region affected by the blowing out of a chamber at a subsequent date. The phenomena shown by these eliminations show for a certainty that, while some were comparatively small, others were of enormous size. Areas of thousands of square miles have been affected by either the elimination of a single chamber or a group of chambers, it is impossible to say which, with our present meagre knowledge of the subject.

Their height from floor to roof was equally variable; some were miles high, while others could be measured with a foot rule. Judging from the rock formations—Limestones—that were built up on some of the fallen roofs, it seems quite probable that a great number were less than 400 feet in height from floor to roof. The deepest parts of our oceans are now at spots where once, underneath them, were either very high chambers, or a series of chambers directly underneath one another. My deductions, based on various and many observations, lead me to believe that but few of the chambers ran into thousands of miles in length. There are, however, phenomena which distinctly show that some did.

The Archaean Gas Chamber would always represent area rather than height. This is very fully verified by several phenomena which followed their eliminations.

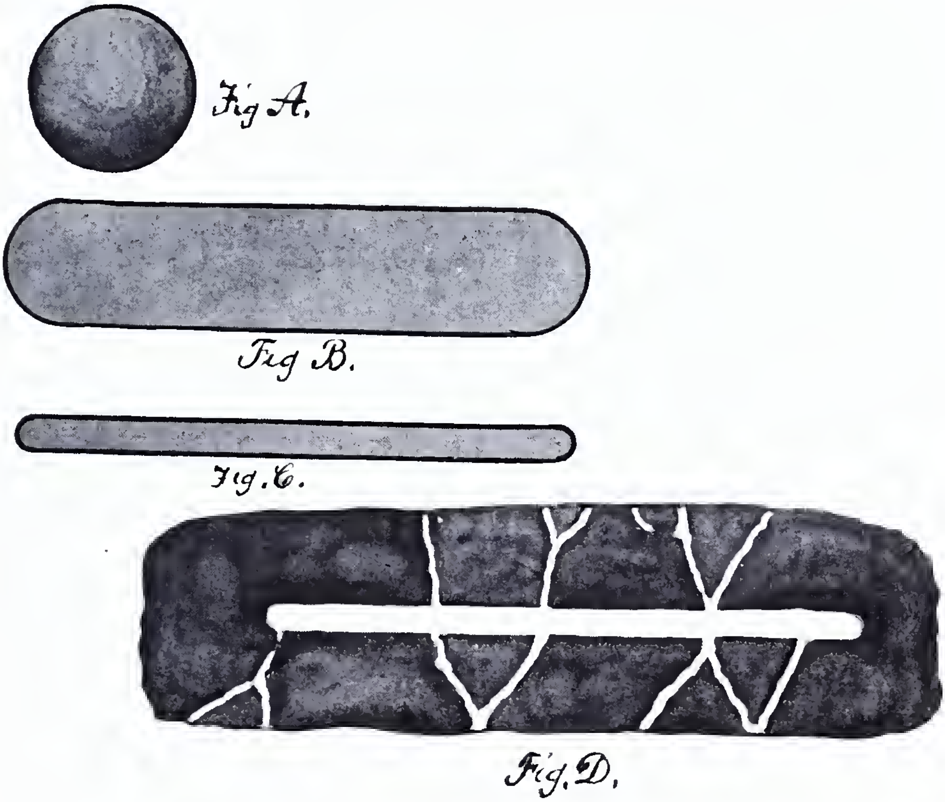


Fig. A.
Fig. B.
Fig. C.
Fig. D.

FROM BUBBLE TO CHAMBER

A. The bubble before being rolled out. Its form in the molten matter.
B. Its surface area after being rolled out.
C. Its height from floor to roof after being rolled out.
D. As encased in the solid rock.

FROM THE BUBBLE TO THE CHAMBER

The cause of the shape of the Chamber is clearly shown in the foregoing illustrations.

I have shown that the honeycombed condition in the foundation rock granite was only a natural one. We have today many natural examples of it—namely, blow-holes in metal castings and holes in a cheese.

The manufacture of the common store cheese is an exact duplication of the compacting of the granite rock, which went on for so many millions of years. When the curds which are to form the cheese are solidified in the tub, they are full of large cavities filled with gases, like a Swiss cheese. From the tub the material is taken out and cut into thin slices; these slices are then put into a form and subjected to great pressure; this compacts the cheese and makes it homogeneous, as we find it on our table.

All through the past millions upon millions of years, from the Archaean Time down to only a few thousands of years ago, the earth's foundation rock granite has been sliced up by volcanic workings, then submerged. The weight of the water above compresses and compacts it, so that now, nearly all if not entirely all of the Old Archaean Gas Chambers that were *anywhere near the surface of the earth* have been worked out and the rock compacted. If any do remain near the surface of the earth, in all probability they are exceedingly small and isolated; or are in connection with a gas belt whose volcanos take care of the accumulations of gases. Now, for many miles in depth, the foundation for the superstructure that rests upon it is perfected. The many submersions of land, through the elimination of gas chambers, are responsible for the formation of the greater part of our rocks.

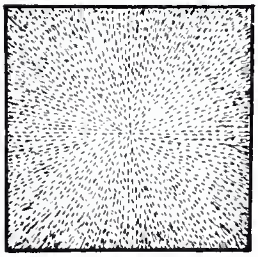
COOLING FROM A HOT SOLID TO ATMOSPHERIC TEMPERATURE

Geologists have entirely ignored and failed to take into consideration the vast volumes and very explosive character of some of the gases which did not solidify during the formation of the primary rock, some of which were encased in the rock itself, and also on the inside of the rock, within the crust. Yet these gases existed and were responsible for many of the phenomena accredited to other causes and other sources.

They have also entirely ignored a phenomenon in the cooling of molten matter from the time it is molten down to the time when it becomes of atmospheric temperature; in other words, the form of cooling. Geology asserts that the earth was reduced in size by contractions from the time the outside of her crust was a hot solid down to the time it became of atmospheric temperature. *No shrinkage in the diameter of a form* from cooling takes place after the outside skin or wall of crystals is formed around the molten matter. Its original diameter is its *ultimate* diameter.

Solidifying of molten matter commences with the formation of an outside skin or wall of crystals. These are in contact and adhering to each other. After this wall is completed, no material shrinkage in the *diameter* of the form takes place. Solidifying is continued by the next matter to the formed crystals cooling down and forming other crystals. These, in forming, adhere to the first line (the wall). When these are set, another line forms and adheres to the second line, and so on to the center or core.

Cross Section of Steel Ingot



During the whole period of building and solidifying of a steel ingot, the matter is being drawn outwards from the center towards the initial wall or skin, the foundation upon which the structure is built.

As the building proceeds, the draw or

pull on the central matter becomes stronger and stronger, resulting in each new line of crystals becoming less dense than the preceding one, and with reduced areas of adhesion one to the other.

If the body to be formed is a long or angular one and the cooling is started at a very high temperature, as the cooling and solidifying proceeds, the matter sinks from the top center, cup-like. This matter has dropped to fill in the space in the center where it has been drawn out towards the skin or foundation wall. The size and depth of this cup is an indication of the amount of material that has been drawn from the center to keep up the continuity of the crystals in building. In some cases, the solidifying and building is so rapid that the top fails to fall in ratio with the central draw. Then, when nearing atmospheric temperature, there being no further falling of matter, the central adhesions give way under the strain and a hollow is formed through the center of the mass which is called "piping"—this is a well-known phenomenon in steel mills.

The earth commenced to solidify from a molten state of fusion. Therefore she commenced to cool and solidify *from the highest possible temperature.*

When the earth's solidified crust began to cool, after the gneiss rocks had been laid down, it was thousands of degrees higher than the temperature of the elements which surrounded her. After the formation of the waters and the atmosphere, the heat was drawn from the earth's surface until the temperature of the earth's skin and the atmosphere were equalized. In the beginning, all temperatures were very high on account of the thinness of the earth's crust; but, as the crust thickened, the storehouse for the earth's forces was enlarged, so that the heat force was gradually drawn back into storage, resulting in the earth's temperatures gradually and evenly becoming lower and lower, down to the end of the Tertiary Era.

Heat, as was shown in my work "Cosmic Forces," is an earthly force that requires space. This was well known to the scientists of the Earth's First Civilization.

As the heat force was drawn out of the earth's body into the atmosphere, each molecule and crystal shrank in size and area of adhesion. This formed internal strains as the heat force was continually being drawn out, which continued to increase until at last the weakened adhesions could stand the strain no longer, but gave way.

Along the weaker lines the adhesions were broken, the rock contracted, leaving huge *internal* cracks and fissures. From many examinations of rock structures which I have seen, I find these fractures were principally vertical, in fact I have failed to find any horizontal fractures.

It is thus seen that when the earth's foundation was completed, it was honeycombed with huge chambers filled with explosive volcanic gases and connected with each other by fissures and passage ways, caused by internal strains and cracking of the rock during cooling. This condition had to be compacted for the superstructure which had yet to be built to rest upon it.

The development and compacting of this foundation rock was the cause of most of the subsequent changes which took place on the earth's surface. It was the cause of the many submersions and emersions of land that occurred during the many, many millions of years from the Archaean Time down to a time about 12,000 to 15,000 years ago.

The geological "fault" as explained by geology is another error. Cooling in the manner the earth did, such phenomena are impossible. "Faults" are to be found almost everywhere in all rock formations, but they have been produced by volcanic workings. Geology asserts that the earth's diameter has shrunk some 19 or 20 miles through cooling since the initial crust was formed. I admit that the diameter of the earth today is 20 miles less than it was in the beginning, and quite probably more than 20 miles, but not one inch of this contraction has been caused through cooling: it has been entirely due to the elimination of Archaean Gas Chambers, where the sinking of their roofs brought the surface to a lower level towards the earth's center. The elimination of the Archaean Gas Chambers is fully explained in Chapter III, which is devoted to the subject.

Gases have been the active agents responsible for all changes in the earth's surface. Gases are responsible for our mountains and mountain ranges; gases are responsible for the depths of our seas and oceans; and gases are today responsible for our earthquakes and volcanoes. *Had the Gases Remained Inactive from the Beginning, Not an Inch of Land Would Ever Have Appeared Above the Surface of the Waters.*

The Naacal writings[1] tell us the way in which land emerged, in the 4th Command in Creation.

Nature has never been prodigal in her works. The gases were encased *within* the foundation rock granite for a purpose; that purpose was to raise land above the surface of the waters, to dig it over, to form soil upon it, to prepare it for the advent of *Man.*

Man could not appear before the proper *condition* for his existence and welfare was completed. *When* this condition *was* completed, *man appeared.*

The outside gases were separated according to command

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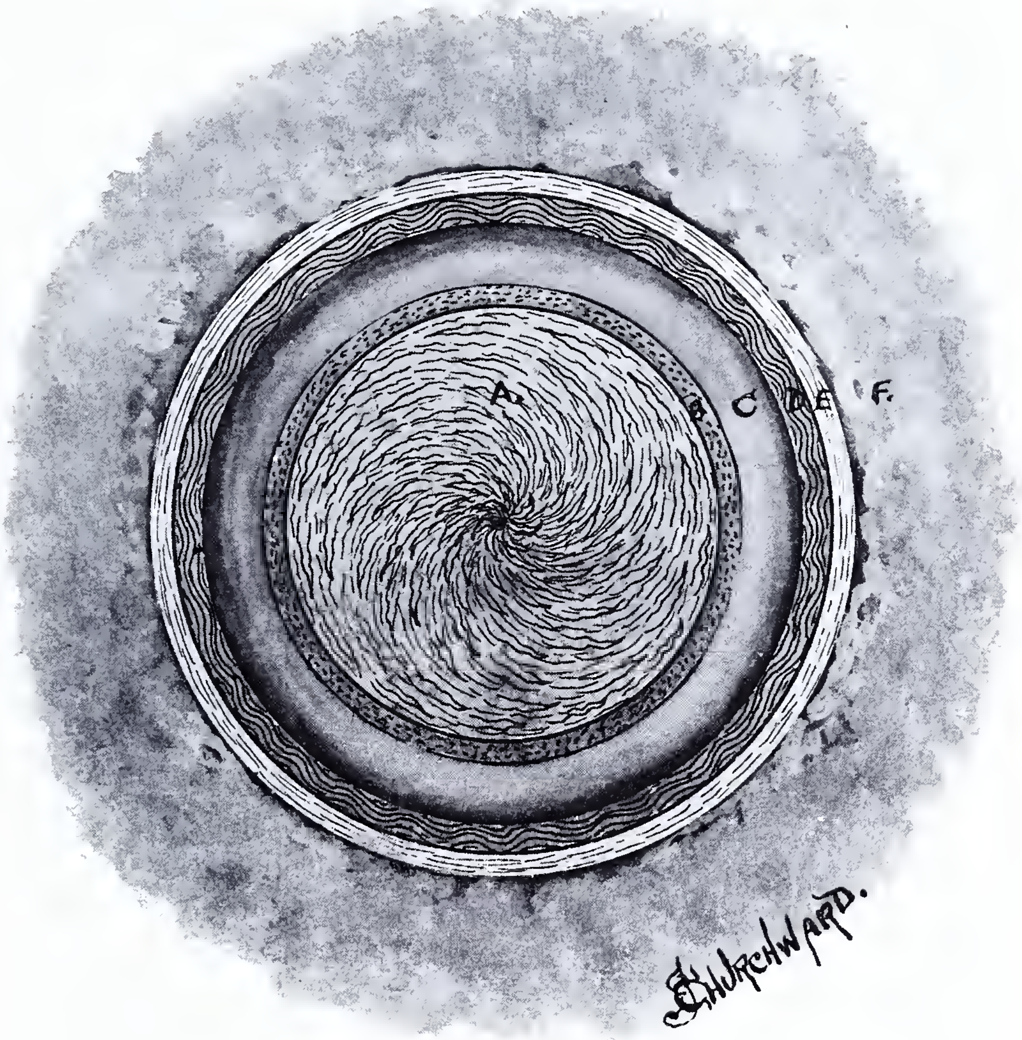
[1] See "The Lost Continent of Mu."



CROSS SECTION OF THE EARTH AT THE EQUATOR WITH WATER AND ATMOSPHERE BEING FORMED

Explanation:

a. Central Gases.
b. Molten Matter.
c. Granite Rock.
d. Gneiss Rock.
e. Water.
f. Water and Atmosphere. (Steam.)

No. 3 in the Naacal writings, which says "Let the outside gases be separated and let them form the atmosphere and the waters. And the gases were separated."

My illustration shows the waters covering the face of the earth, but in a boiling state, sending off vast volumes of steam making an impenetrable veil. *Darkness still covers the face of the earth.*

As soon as the heavy outside solidifying gases had worked into chemical combinations, solidified and formed the secondary rocks of the earth's foundation, the remaining outside gases went into chemical combinations and formed the atmosphere and the waters. This development commenced with the formation of the waters. In all probability, the first form of water was particles of humidity, these joined and formed a cloud-like fog around the earth. The next stage was condensation, where the particles of humidity joined and formed raindrops; these fell upon the hot scorching rocks forming the earth's crust; on coming in contact with the red hot rocks the raindrops were hurled back again in the form of steam. Thus for a time the earth's body was surrounded by a thick impenetrable veil of steam.

Time and continuous cooling brought the earth's surface down to a temperature where the waters could rest upon it, but only in a seething, boiling state. Again for a long period of time, a dense veil of steam from the boiling waters enveloped the earth, so that darkness still covered the face of the earth. Another long period of time elapsed; the waters cooled and ceased to boil, and the great volumes of steam ceased to arise. Eventually the atmosphere became normal. Then there was *Light,* as we know it.

All details about the phenomenon, light, were given in my work entitled "Cosmic Forces of Mu."

CHAPTER II

THE ARCHAEAN ROCKS

BEFORE proceeding further with the earth's development, I think it will be of advantage to consider the *Chemistry of the Archaean Rocks, and Their General Construction.*

The chemistry and construction of the Archaean Rocks virtually governed the development of the earth.

I have previously stated that vast volumes of non-solidifying gases were encased in great chambers in the foundation rock—*Granite.* The analysis of the granite rock will prove this fact. I have shown that all the gases in their original form were elementary. In cooling, some were joined in *certain proportions,* or percentages, one to the other, and formed intimate or chemical unions, thus becoming chemical compounds, such as silicates, for example.

These chemical compounds were joined *mechanically* and formed rocks. The rocks thus formed were:

1. *Granite. The primary foundation rock,* and
2. *The Gneisses. The secondary foundation rocks.*

The secondary foundation rocks commenced forming upon the primary rock as soon as the initial crust was formed, as is shown by some of the early gneisses running into the granite. This shows that the gneisses commenced to be laid down while the granite was still in a semi-molten state.

GRANITE

The primary foundation rock, cooled from fusion, formed by a mechanical union of *Quartz, Felspar* and *Mica.*

Quartz is a chemical compound of *Silicon* and *Oxygen.* One atom of *Silicon* to two atoms of *Oxygen* ($Si. 0_2$).

Felspar is a mechanical union of the chemical compounds called *Alumina, Silica, Potash* (and sometimes *Lime*).

Mica is a mechanical union of the chemical compounds *Alumina, Silica, Potash* and *Magnesia.*

Chemical Compound	*Elements Composing the Compound*	*Proportions*
Silica	Silicon and Oxygen	$Si\,O_2$
Alumina	Aluminum and Oxygen	$Al_2\,O_3$
Potash	Potassium and Oxygen	$K_2\,O$
Magnesia	Magnesium and Oxygen	$Mg\,O$
Lime	Calcium and Oxygen	$Ca\,O$

From this table it will be seen that the primary rock, the foundation of the earth, is composed of *Six* elements only, namely, Oxygen, Aluminum, Silicon, Magnesium, Calcium, and Potassium.

It will be noted that the elements from which explosives are formed are not included, such as *Nitrogen, Hydrogen, Sulphur, Carbon,* etc.

These gases did not in any way enter into the make-up of the granite rock, but remained as gases. There were, however, vast volumes of them associated with the Six gases, when the rock was being formed, consequently they, or rather their disposition, must be accounted for.

The chemical combinations and compounds forming the granite rock imply that oxygen was nature's solidifier, and Silicon was nature's hardening element. Oxygen, being universally distributed throughout all rocks and soil, and being a great affinity of the First Division of the Earth's Primary Force, evidently became the principal conductor of that Force from its origin to the earth's surface.

THE GNEISSES

I have termed these the Secondary Archaean Rocks, because they were not concerned in forming the first initial crust, but were *subsequent outside additions,* and were laid down after the first initial crust was formed. The Secondary Archaean Rocks consist of *Gneiss, Syente Gneiss, Syente, Chlorite Schist, Mica Schist,* etc.

These secondary, like the primary rocks, cooled from fusion, but not in the same manner, for while the secondary rocks are stratified, there are no stratifications in the primary.

The stratified condition of the secondary rocks show that they were laid down in sections, one layer being formed on top of another.

If *all* of the secondary rocks consisted *only* of the same elements as the primary, there would be good ground for assuming that they were only erosions of the primary, caused by hot, scorching, outside gases; but most of the secondary rocks contain elements that are not found in the primary. There are new elements in some, and absence of old elements in others. A careful study of the secondary rocks shows a gradual and consistent change as each new rock was formed. This absolutely precludes the possibility that they were formed from the primary rock. They are therefore absolutely independent: Hornblende, which contains iron, is present in some of the secondary rocks, but is entirely absent in the primary rock. In other cases aluminum is replaced by iron; these changes intimate that

1. Although stratified, the secondary foundation rocks cooled from fusion.

2. That while the earth's crust was thickening by cooling and solidifying on the inside of the initial crust, the crust was also being thickened by outside additions.

3. That the Secondary Archaean Rocks were not formed of erosions of the primary rock granite, but by the cooling and solidifying of heavy rock-making gases that had been left on the outside of the initial crust when it was formed.

It will be interesting now to take up and consider the compositions of the secondary rocks, to compare them with the primary, and to note wherein they differ.

GNEISS

The common gneiss has the same constituents as granite, but is arranged in planes or strata. On account of this, gneiss is called a Schistose rock. The word schistose comes from the Greek and means divisible. The only difference between the common gneiss and granite is the absence of any stratification in the granite. Reasonable deductions would therefore place the common gneiss as the first rock to be laid down on the granite on the outside, directly the granite was sufficiently solid for the gneiss to rest upon it. Thus the cooling zone in the Nebula is shown to have been between the granite and the gneisses.

As no iron is found in the common gneiss, it is self-apparent that, when the common gneiss was being formed, the iron gases had not yet commenced to go into chemical compounds or oxides, or in combination with any other element that was new to granite. By noting carefully the stages which the iron gases passed through in cooling and solidifying before the regular deposits of iron oxides were made, it would appear that the temperature continued too high to combine the iron gases with oxygen during the formation of the first gneiss rocks. Thus a moderately near estimate can be made of the temperature of the outside gases at this time.

MICA SCHIST

As the name implies, this is another stratified rock. It has the same constituents as granite, but in different proportions. Quartz and Mica are far more abundant.

SYENITE

In Syenite we find the first radical change in the composition of the Archaean rocks. Hornblende replaces Mica, and iron is one of the constituent parts of hornblende; the presence of iron forms one of the differences in Syenite Gneiss from the Common Gneiss and Mica Schist.

By a study of the rocks so far formed it will be seen that beyond Silicon, Aluminum and iron in Syenite, metals generally do not apparently enter into the combination of rocks until we pass into the regular hornblendic series.

From the time of the formation of the syenites and hornblendic rocks, iron took a prominent part. The natural law governing percentages of elements, one to the other, that can be carried into intimate or chemical union, was prominently shown in the cooling of the iron gases.

A given percentage only of certain elements can go into chemical union with each other; any surplus over this goes into mechanical union only. At the time the iron gases were cooling and solidifying, the rocks then forming could absorb only a small proportion; the balance went into chemical union with nature's great solidifier, oxygen, and formed iron oxides. When these oxides were formed they collected and settled, forming what is termed iron ore, some deposits of which are enormous. These deposits are generally found between the secondary rocks. This, of course, is only a general outline.

Sometimes, when cooling and solidifying, metals filled in pockets which had been made by folding rocks.

Sometimes they formed beds between the rocks. At a later date they were melted by volcanic workings, and filled up cracks and fissures in the rocks, thus forming veins. Iron ores, however, generally lie between Quartz Gneiss and other rocks of this era. Volumes can be, and have been, written on this subject. My object is only to note the order in which the original elementary gases cooled and solidified.

During the many sinkings and upheavals of land which took place after the ore beds were formed, with the constant pulverizations and erosions due to volcanic workings, many of the ancient ore beds have been completely broken up. Their pulverizations and erosion went to help make new rocks in the superstructure which has been built upon the foundation rocks, granite and the gneisses. In these rocks they are in mechanical, not chemical, union. Ores, generally, are found among metamorphosed rocks. *Metamorphic* comes from the Greek, and means *changed* or *radically* altered. These alterations have generally been caused by heat brought about by volcanic workings. The heat generally was below that required for the actual fusion of the rocks.

By the agency of Volcanic heat, Limestones have become crystalline. White marble is an example, and sandstones made of granite sand have become related to gneiss. In some cases the heat has been sufficient for the actual fusion of the rock. Then the planes of stratification have been eliminated, and the rock turned to granite instead of gneiss.

Geology states that "The origin of the Archaean rocks is not fully determined. Many of them are igneous; whether sedimentary rocks are included is not determined."

I fail to see a particle of reason in this paragraph, especially the last sentence relating to "sedimentary rocks," because there was no water on the face of the earth when the Archaean rocks were formed. Since there was no water, there could not possibly be any sedimentary formations. Water did not rest upon the face of the earth until the rocks forming the surface dropped to a temperature below 212 degrees Fahrenheit.

Without water, sediments are impossible. Therefore Archaean sedimentary rocks are impossible.

All of the Archaean rocks are igneous; that is, they cooled from fusion. Before the waters could be formed, all of the heavy rock-making gases that were on the outside of the earth's initial crust must have cooled, solidified and formed rocks. Then after the solidification had taken place, the rocks had to cool down to a temperature low enough to make them solid and brittle, before any pulverizations and erosions could be made with which to form a sediment.

Attempts have been made to find fossil remains of life in the Archaean rocks, which is absurd. If a fossil is found in a rock, *that rock is not an Archaean Rock.*

When the Archaean rocks were formed, the material with which they were made was at a temperature of thousands of degrees higher than that at which life could be formed. Life cannot be formed at a temperature of over about 180 degrees F.; I think not quite as high. I have never been able to produce any form of life with a temperature of over 170 degrees F. The reason is, the volume of the Vital Force is so high no chemical compound of elements can be formed that will balance it.

At 170 degrees F. I obtained life in the form of microscopical marine grasses and lichens.

CHAPTER III

GAS CHAMBERS

I HAVE previously shown how the Old Archaean Gas Chambers were formed. As the body of the earth cooled, and great cracks, fissures and passage-ways were opened up between the Chambers, they naturally divided into groups. I have made a careful study of all of the phenomena where eliminations of old chambers are apparent. Upon this study I give some sketches of what I believe to have been typical groupings.

Fig. 1. Here are shown three chambers in line, connected directly with each other by gaping fissures or tunnels. They are also connected with the earth's center. It would not matter which of these chambers blew out. All the others would collapse, for their gases would be drawn out through the tunnels running from them to the one in eruption.

Fig. 2. Here again we have a series of chambers in line, but indirectly connected with each other by fissures and cracks far down below them. Only their feeders are connected with each other. Any one of these chambers might be blown out without affecting either of the others beyond hastening their blow-out at a subsequent date, as the gases which were blowing into the blown-out chamber would be diverted to one or more of the remaining ones.

Fig. 3. This cut shows what I believe to be a typical grouping of Archaean Gas Chambers in the granite rock, and how a cross-section would look.

Should chamber 1 blow out, it might possibly drain out the gases from the chambers below 2, 3, 4, and 5 to such an extent that one or more of them might collapse with No. 1.

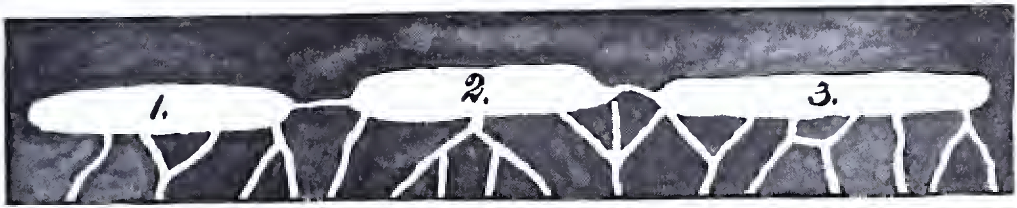


Fig. 1.

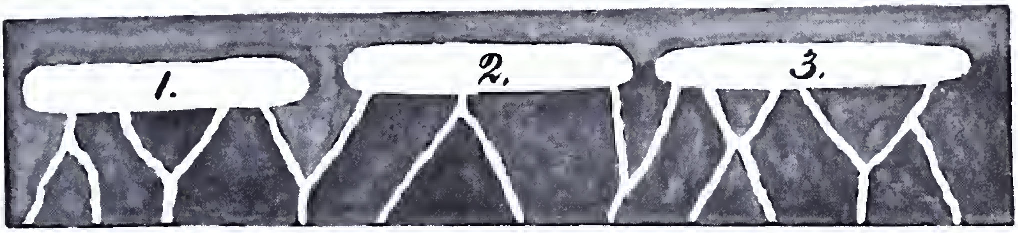


Fig 2

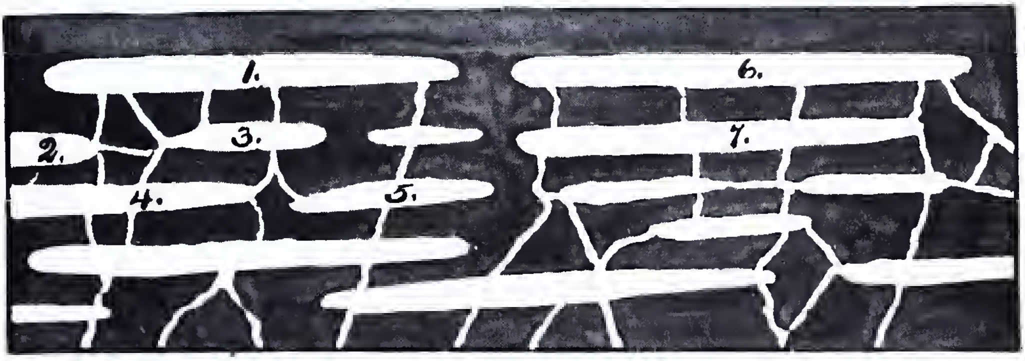


Fig 3.

GAS CHAMBERS

1. Three chambers connected in line.
2. Three chambers in line, indirectly connected.
3. What I believe to be a typical formation of group chambers.

Should chamber 6 blow out, in all probability No. 7 would go with it.

When two chambers are lying directly beneath one another, but a short distance apart, with huge fissures connecting them, they could be counted as one chamber only, and when they blew out it would be a double-header. Such a collapse would leave a hole miles deep.

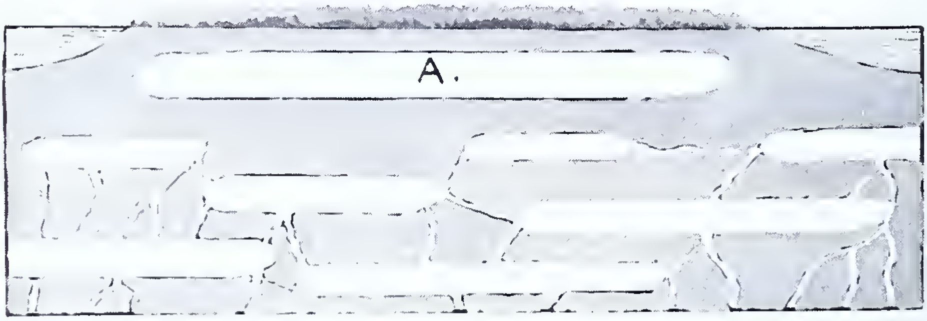


Fig 1

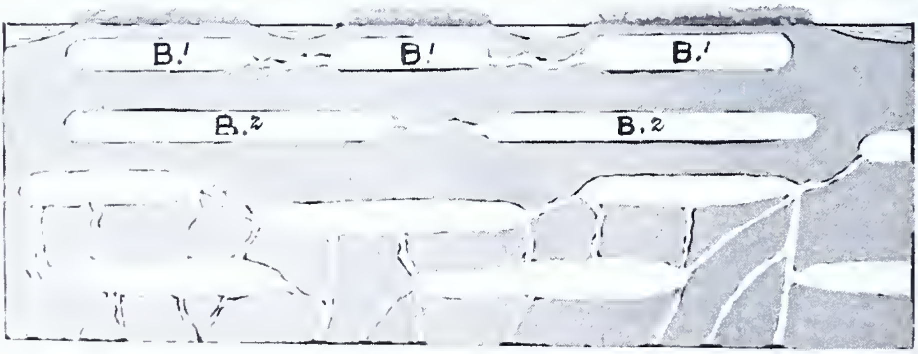


Fig 2.

GAS CHAMBERS

A. A single isolated chamber upholding an area of land.

B_1. Three isolated chambers upholding three areas of land.

B_2. A pair of isolated chambers coming between those upholding the lands and the live chambers below.

Fig. 1. This cut shows an immense single isolated chamber upholding an area of land. As no gases are flowing into it, it is, for the time being, dead. This was probably the condition which underlay Atlantis.

Fig. 2. Here I show a series of isolated chambers, three of the upper ones upholding three areas of land, and connected with each other by passageways or tunnels. When they are brought into connection with the line chambers below, they will be blown out and the three lands submerged.

This probably is typical of the condition which underlay the Land of Mu—the Motherland of Man.

ELIMINATING GAS CHAMBERS

Phenomena disclose the fact that many of the Archaean Gas Chambers were blown out and eliminated even before the rocks were cold, and before the waters could settle on the fiery face of the earth. It is also shown that the bulk of the eliminated chambers did not get blown out until much later in the earth's history. The many submersions and emersions of land which took place from the Early Cambrian Era down to 12,500 years ago are phenomena which geology does not explain or account for; notwithstanding, they are the principal guide-posts in the earth's history. It is indicated that the bulk of the chambers were blown out during the period of time running from about the Middle Cambrian Era down to the end of the Tertiary Era.

An immense number of small chambers which lay very close to the surface were blown out during the Pre-Cambrian Time.

It is more than probable that now nearly all of the chambers down to a depth of from 15 to 18 miles below the earth's surface have been eliminated, except possibly a few small, isolated ones, which hereafter I shall take into consideration.

General rock formations confirm the fact that the Archaean Gas Chambers represented area, rather than height from floor to roof. This, as already explained, was due to a rolling process which they underwent after their formation. The space occupied by these chambers added thickness to the granite rock, at the expense of its general density and homogeneity.

Taking into consideration the vast volumes of non-solidifying gases that were encased within the granite rock, it stands to reason that chambers had to be formed pretty close one above the other to take care of these gases.

It is a great question what proportion of the Primary Rock-Granite was composed of gas chambers. Basing a calculation on the Chemical analysis of granite, it would seem that fully one-half was made up of these chambers. This again seems verified by the earth's shrinkage from her original diameter.

Geology has asserted that this shrinkage has been caused by contractions in cooling. In my introductory chapter, I took great pains to show and demonstrate that a body solidifying and cooling from molten matter does not reduce in diameter from the time the initial crust of crystals is formed.

By eliminating the gas chambers to a depth of from 15 to 20 miles below the earth's surface, and then compacting the rock, it is easily seen how the earth's original diameter was cut down; so that it is unnecessary to advance an unnatural theory about cooling molten matter to account for the phenomenon of the earth's diameter having been reduced since the beginning.

The elimination of the chambers also clears up the great mystery of how and why so many emersions and submersions of lands took place in past ages, resulting each time in the formation of a new rock or rocks.

It is evident that all of the gases that did not go to form rock went to form chambers in the rock. The proportion of Carbon now in solid form has become so *since* the formation of granite.

There seems to be every reason for believing that nitrogen, carbon and sulphur were the principal gases contained in the chambers, with oxygen, hydrogen and phosphorus coming next.

All through the long Paleozoic Time, the eliminations went on, with ever-increasing violence. The increase in violence was caused by the thickening and compacting of the rock overlying the chamber which was being worked out. The thickened and compacted rock above offered greater resistance to the gases than hitherto, and each succeeding chamber below had to meet with greater and increased resistance than the preceding one. All through the *long* Mesozoic Time the eliminations went on, fewer in number but attended with greater violence, and all through the Cenozoic Time down to the edge of recorded history.

The final eliminations were directly preceding the raising of the mountains. During this period and the raising of the mountains, the violence of the volcanic workings were such as the earth had never experienced before, nor has she since*, and Man went through it all.*

The central Centrifugal Force always was, and is to this day, separating and sifting out the non-solidifying gases from the earth's molten center. As they are sifted out, they are forced through the cracks and fissures in the granite into the already filled chambers, by the immeasurable force of the earth's central molten matter driven by the Central Centrifugal Force.

These added gases being driven into the chambers by an immeasurable force, the chambers became more and more over-compressed. This necessitated more space for the gases, and it was obtained by raising the roof of the uppermost chamber, along the line of least resistance. This raising of the roof brought the land nearer to the surface of the water. Another over-compression and another thrust by the gases brought the land above the surface of the water, the roof becoming thinner and thinner with each new thrust and raising.

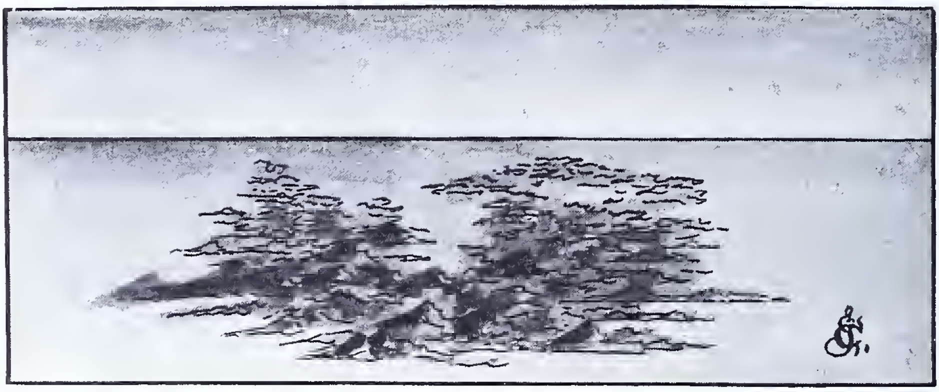


Fig. 1.

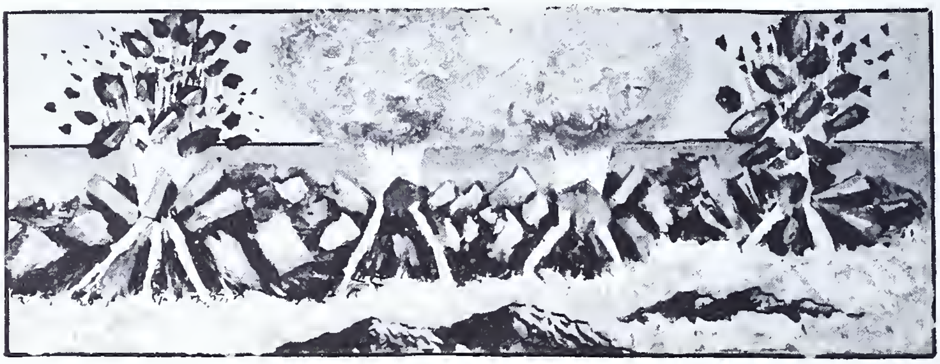


Fig. 2.

THE ROOF OF A CHAMBER

1. The roof of a chamber emerging.
2. The roof of the chamber punctured, the gases being drained out, preceding re-submersion.

Eventually the roof, strained and cracked, could stand it no longer. The next thrust punctured the roof, and the gases escaped in the form of volcanoes. When the pressure of the gases became so low they could not uphold the roof, the roof crashed, and the land again became submerged.

The first land to appear above the water was composed of gneiss rocks. The granite could not be the first to appear because the waters were not formed until after the gneisses had been laid down upon the granite, and the upper chambers had so little granite in their roofs that it could not be pushed through the gneisses before the rocks came to the surface of the waters.

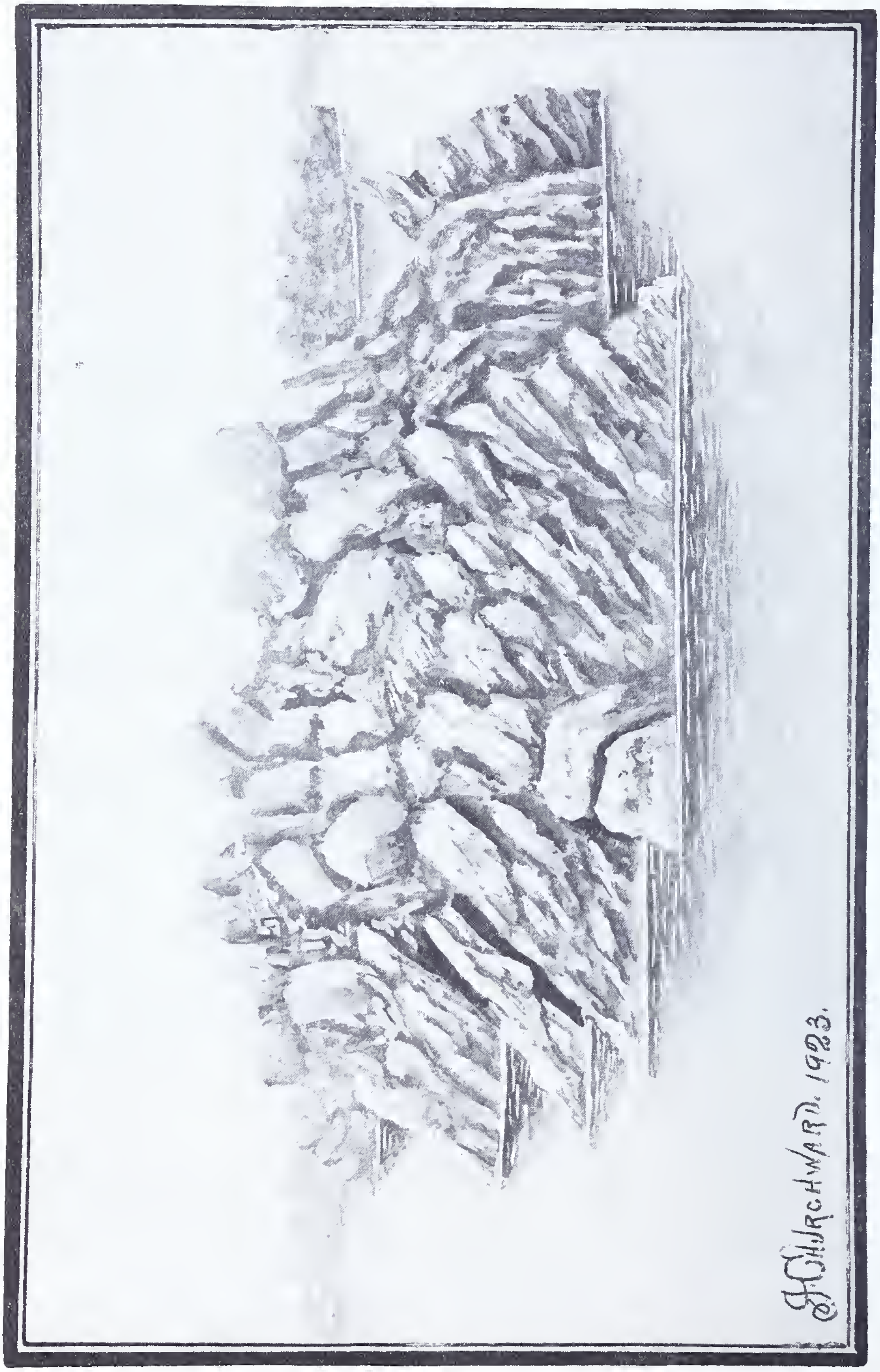
The first land to appear above the waters was necessarily in low-lying, rocky ridges, because the chamber whose gases raised the land was quite close to the surface. The crust above these chambers would therefore be so thin, that no high elevation could be attained before they were punctured. The illustrations show nearby views of the rocks being raised and punctured, with the volcanoes emptying out the gases from the chamber below. The rocks have been raised above the water, only to go down again when the gases have been emptied out from the chamber below.

After the rocks had been raised above the waters, oxidations and erosions commenced. This was the beginning of the formation of gravel, sand and soil.

Direct emptying is accomplished when the gases puncture the roof of the chamber. Through this puncture the gases escape, forming a volcano.

Fig. 1, page 52, represents a chamber whose gases are bolstering and upholding an area of land.

Fig. 2 shows the gases as having become over-compressed. They have raised and punctured the roof. In raising, the roof becomes cracked, as shown by arrows. As soon as the gases are drained out, the roof collapses and falls to the floor, as a jumbled mass of rocks.


J. Churchward. 1923.

THE SECOND EMERGENCE. RAISED BY THE CHAMBER BELOW

AFTER MANY TIMES SUBMERSIONS AND EMERSIONS

The probable appearance of the land after emerging and being submerged several times. Little beds of sand and coarse soil are found in pockets between the rocks.

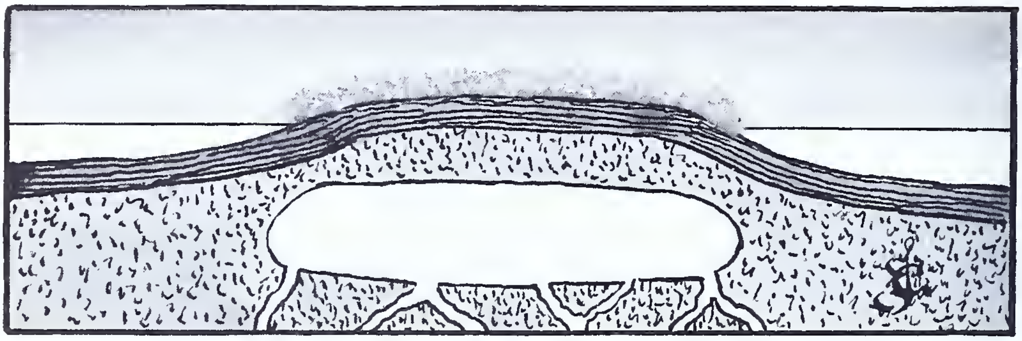


Fig. 1.

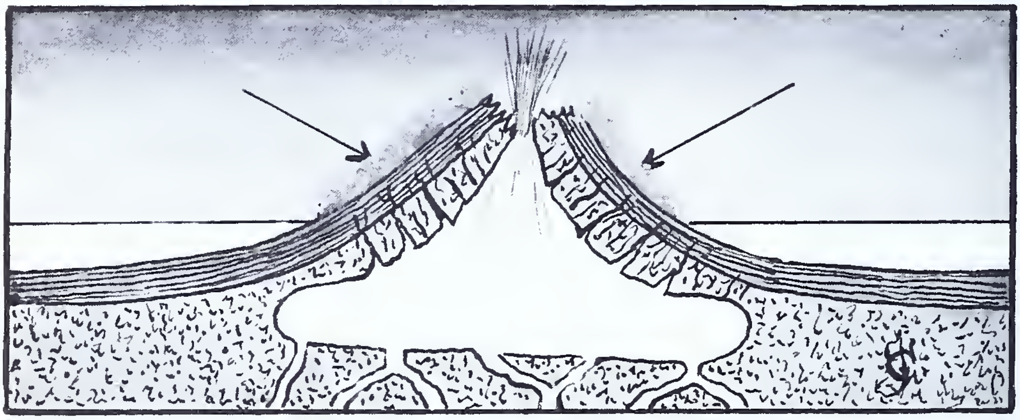


Fig. 2.

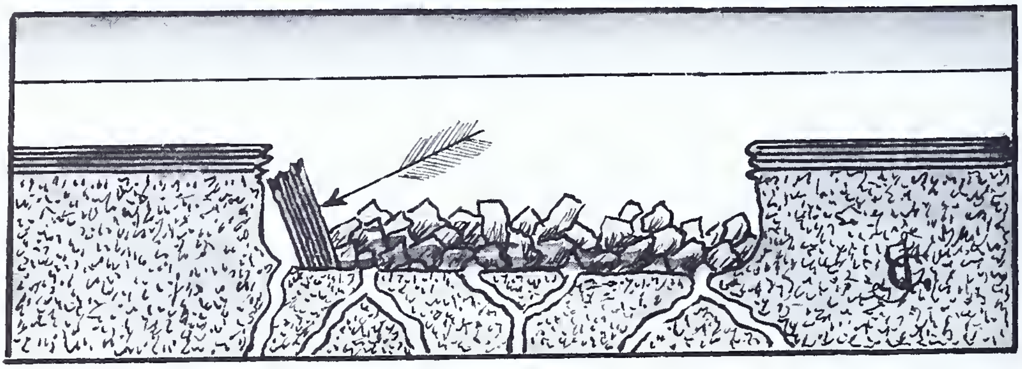


Fig. 3.

DIRECT EMPTYING

Fig. 1. Normal condition, before over-compression.
Fig. 2. Over-compressed, roof punctured, gases escaping.
Fig. 3. Roof fallen to the floor, the land submerged.

Fig. 3. After the roof falls to the floor, the surrounding waters flow over it, and the land becomes submerged.

Indirect emptying is accomplished by the gases of a chamber whose roof has not been punctured flowing into another chamber whose roof has been punctured. The gases of both chambers are emptied out through one single crater. As the gases of both Chambers are drained out, both collapse.

Fig. 1, page 54, shows the two chambers in a normal condition with both upholding areas of land. They are connected with each other by a huge fissure or tunnel.

Fig. 2 shows Chamber B with its roof punctured and the gases escaping in the form of a volcano. The gases from Chamber A flow into Chamber B as the pressure goes down. Thus both Chambers are being emptied at the same time.

Fig. 3 shows the result of the collapse of both chambers. Chamber B is a duplication of Fig. 3, page 52, with the roof in a jumbled condition.

When the bolstering gases were withdrawn from Chamber A, the roof fell. It was very much cracked, without doubt, and around the edges there was confusion. The surface generally, however, was not much broken up, and areas of vegetation still remained after the land was submerged. Chamber B, Fig. 3, shows extreme confusion of the rocks. Such a confusion can better be imagined than described. The rocks, the broken parts of the fallen roof, are piled together in every conceivable manner and angle. Similar confusions of rock are to be met with in many spots on the earth's surface. Chamber A, Fig. 3, page 54, should be carefully noted, as a great deal will be said about this chamber later on. It accounts for

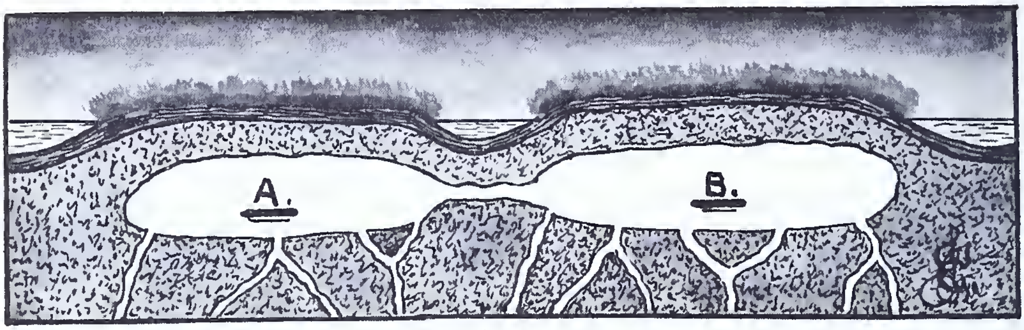


Fig. 1.

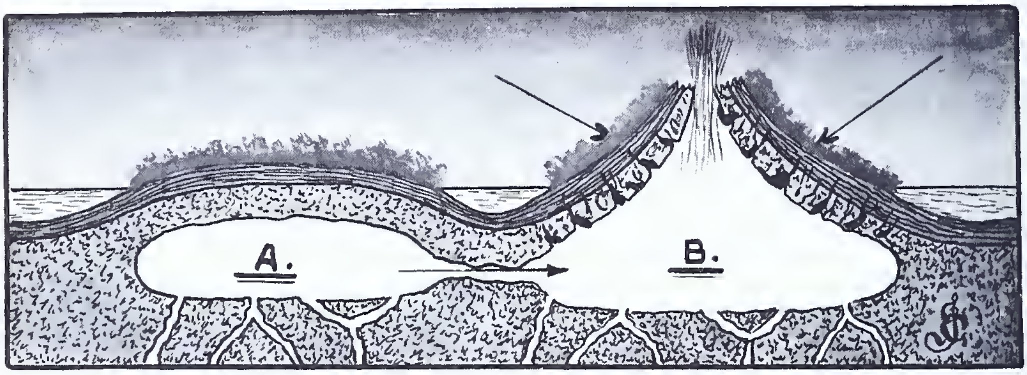


Fig. 2.

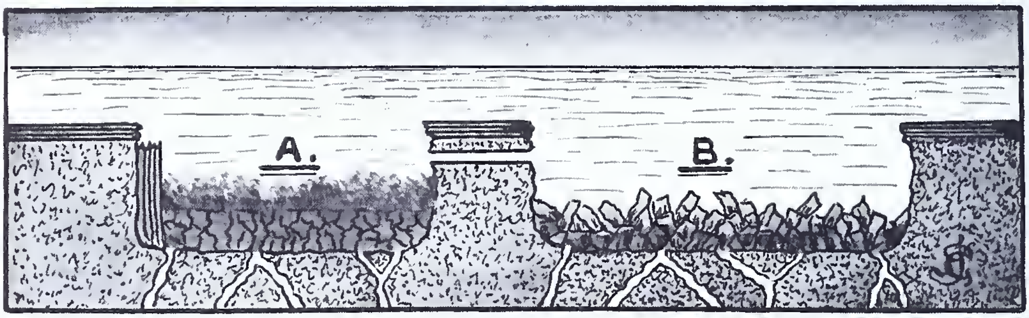


Fig. 3.

INDIRECT EMPTYING

1. Normal condition of chambers before over-compressing.

2. Over-compressed. Roof of B punctured. Gases from both chambers escaping, A into B, then through volcano.

3. Both chambers collapsed, roof of A falls flat. Roof of B a jumbled mass.

one, if not two, of the phenomena over which there is a great controversy among geologists today.

It is very probable that the elimination of gas chambers underneath any particular area occurred at very irregular intervals, which would to a great extent be governed by the distance in depth between one and another. The period of time might have been short or long.

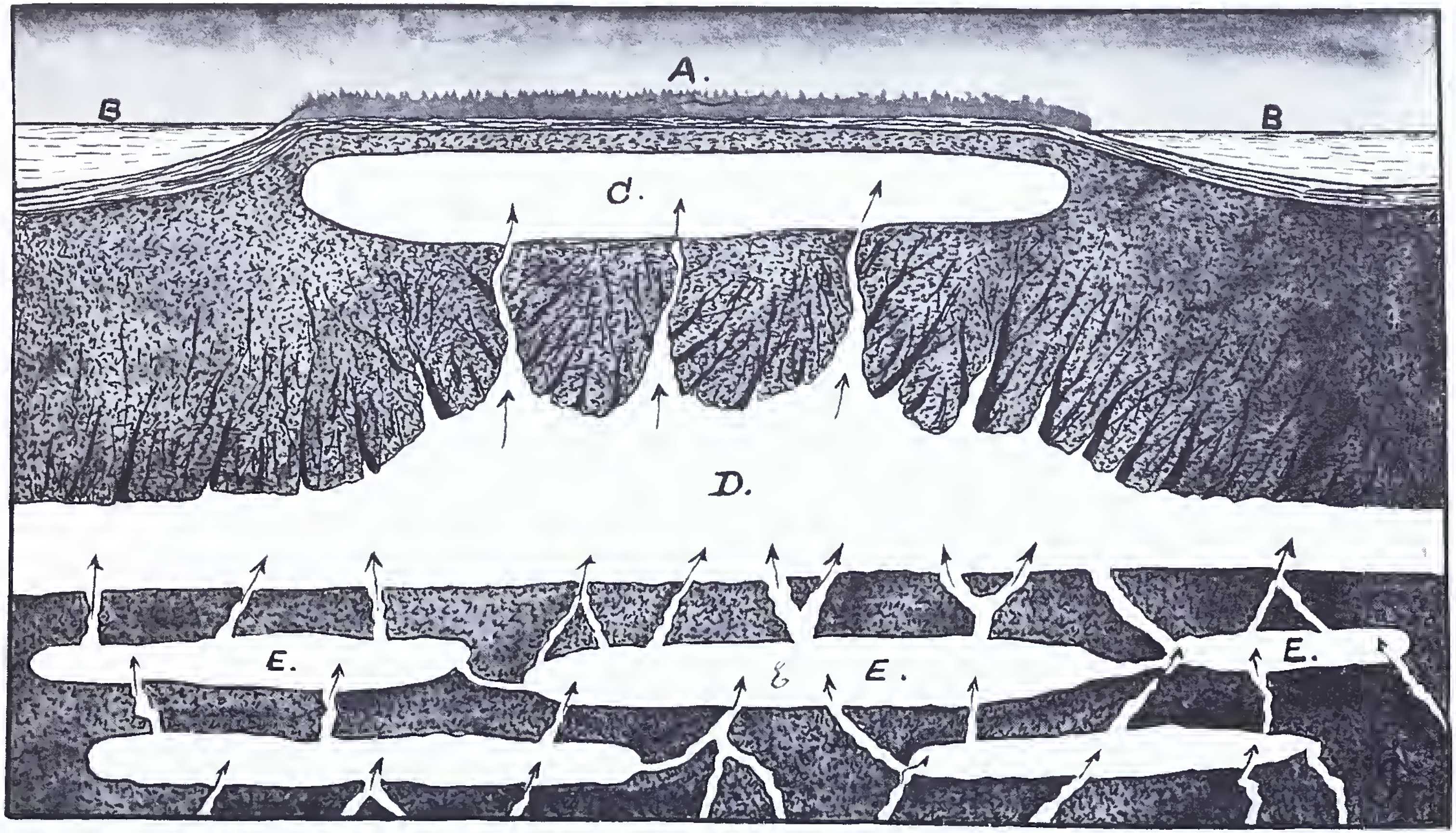
After the upper chamber had collapsed, overcompression after overcompression must necessarily follow before the roof of the chamber below becomes thin enough for the gases to puncture it. That the periods were irregular between eliminations is corroborated by the difference in the thicknesses of rock which are found between coal seams.

Referring back to Fig. 3-A, page 54, it will be seen that the only great confusion of the fallen material is around the sides and edges. The center would necessarily be very much cracked, and at spots would probably show irregularities. There would, however, be no such jumble as is shown in Fig. 3-B, page 54, where the chamber collapsed through direct emptying.

This fallen roof, Fig. 3-A, represents a *condition* that permits of a *coal formation.*

The arrow in Fig. 3, page 52, points to another important *condition,* and one frequently met with in geological formations. In falling, one of the sides was broken off at a distance from the edge of the chamber. The broken end struck the floor, then fractured in the middle. One part lay flat on the floor, the other remained upright, so that the stratifications of the segment on the floor show as horizontal, while those of the other show vertical stratifications.

From various observations, I am led to believe that nearly all, if not actually all, of the chambers which were



THE BLOWING OUT OF AN ISOLATED CHAMBER

A. An area of land upheld by an isolated gas chamber. B. Oceans surrounding the land. C. The isolated chamber. D. A forming gas belt. E. Lower chambers whose gases are feeding the belt.

responsible for our coal formations were, comparatively speaking small, and invariably of the shallow kind.

ISOLATED CHAMBERS, many of which were near the surface of the earth lay apparently dead and inactive. When the gas belts began to form, fissures and cracks were opened up from the forming belt to the heretofore isolated chamber; then one after the other they were blown out, and the land submerged with an appalling loss of human lives.

The compacted rock between the earth's surface and the lines of the gas belts became too thick to puncture as heretofore, so the rock was lifted bodily along the route of the belt, which phenomenon will be explained in the Chapter on our mountains and Formation of Gas Belts.

In lifting the land to form these tunnels, the rocks overhead were lifted. When lifted, they cracked, forming great fissures which led into the isolated chamber. The gases from the belt overcompressed the chamber and blew it out. The land was submerged after having been raised for a very long period of time.

I do not think that the bulk of these submerged lands originally emerged through the elevation of the roofs of gas chambers, but rather that shallow seas covered them, and they appeared above the level of the waters, when their waters were drawn off to fill in the hole made by the elimination of some nearby chamber. In the beginning, there were no deep oceans as now. From the many limestones formed by the coral insect, it is shown that where these were formed the waters were less than 400 feet in depth.

Archaean Gas Chambers were formed in the granite rock, in the most irregular manner. They existed, however, everywhere in the rock. When a very high chamber, or a series of chambers one underneath the other, were blown out and collapsed, the depth of water increased over this area to the extent of the height of the Chamber or Chambers, less the general lowering of the level of the waters. It is this phenomenon which accounts for the exceedingly great depths in spots, of our oceans.

Judging by the present depths of our oceans and seas, it seems reasonable to believe that practically all of our low-lying lands have emerged through this form of drainage, and not through any upheaval.

The State of Florida is a perfect example. This State did not emerge by an upheaval, but by the lowering of the level of the ocean when Atlantis and the Overland Route to Europe went down. The Mississippi Valley and the Valley of the Amazon were drained at the same time, and the general coast-line along North America was extended.

CHAPTER IV

COAL

DURING the Carbonic Era, later Paleozoic Time, our principal coal deposits were made. The principal ones, but not all; as geology tells us that some were formed as late as the upper Cretaceous Period, Mesozoic Time. At present no reason presents itself to me why some should not have been formed during the Early Tertiary Era, except the change in the character of the vegetation during the Late Cretaceous.

One of the very interesting points about coal seams is that they show us where some of the old Archaean Gas Chambers lay below the surface, and in many cases they show us where a series of chambers and series in line, with connections between them, lay one underneath the other.

Coal measures or coal deposits have been laid down all over the world. As they are listed in many of our geological works, it is unnecessary to enumerate them here.

As I am going to say that the current geological theory regarding the manner of the formation of coal seams is an error, I think it only fair to geology to give its side of the question, so that readers can see at a glance the points I contend. I therefore take some extracts from the works of the late James D. Dana.

"Coal beds lie between rock formations. These rocks are generally shales, sandstones, conglomerates and sometimes limestones."

"Coal beds or seams vary in thickness from less than an inch to 30 and 40 feet."

"The layer of rock underneath a coal bed is often of a clayey nature called underclay."

"The shale or underclay is often full of roots and stems of trees."

"The trunks sometimes project from the top of the bed of the coal into the rock above."

"Some coal beds contain too much earthy matter."

"Some coal beds have layers of shale in them."

"Coal was made from plants."

"Each coal bed was originally a bed of vegetable matter accumulated in nearly the same manner as peat beds of the present time."

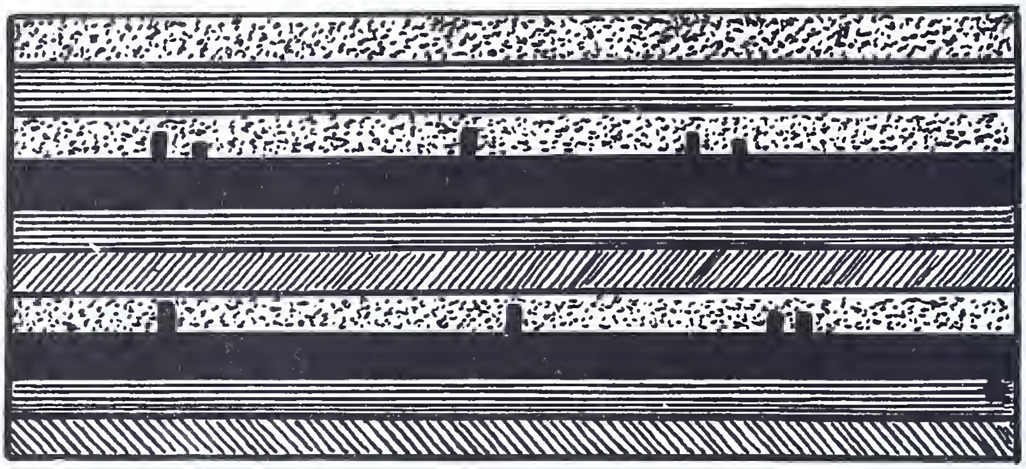


Fig. 1

Fig 2.

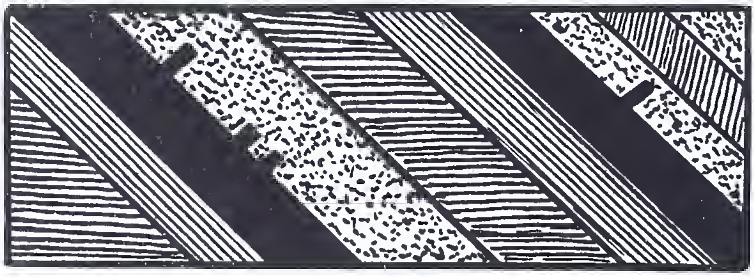
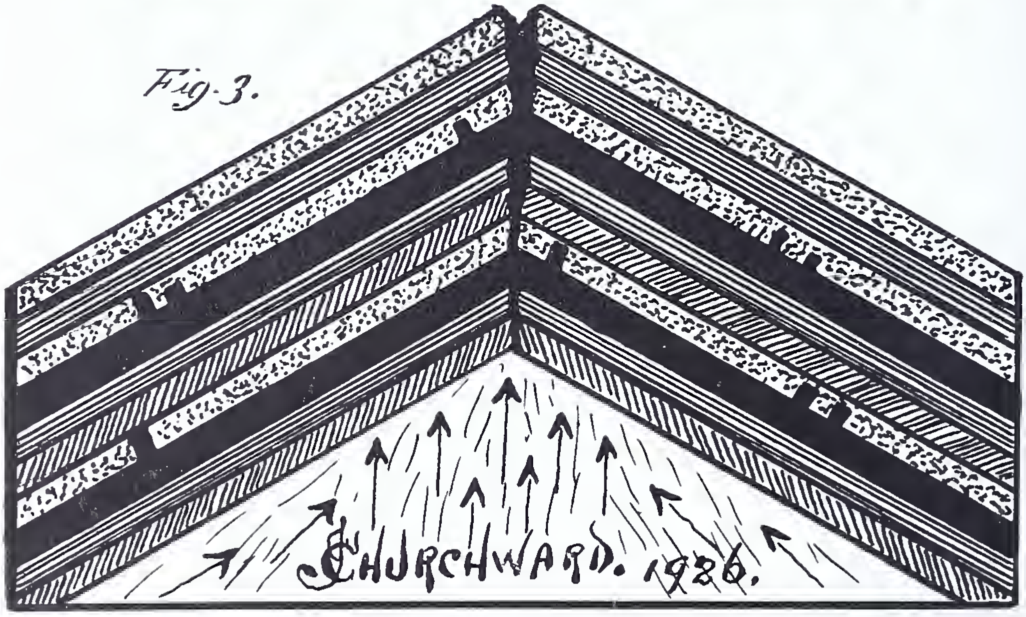


Fig. 3.



TYPICAL COAL DEPOSITS

1. As appearing in flat lands.
2. As appearing in the side of a mountain.
3. The mountain being raised by volcanic gases after the seams have been formed.

"Peat beds are composed of deposits of leaves, stems, roots, and remains of plants which are found in the waters of marshy lands, where water-mosses grow besides other plants. The plants and trees shed their fruit and leaves annually; these fall into the water. The material of the plants UNDER *the water* undergo a kind of *smothered combustion*—they become *black;* they are reduced to a pulpy state, rarely to an imperfect coal, and the mass thus altered constitutes what is termed a peat bed."

"Each Coal Bed Was First a Peat Bed."

The foregoing are extracts, verbatim, of what is found in standard geological works. The theory is orthodox and is taught in our educational institutions, from the highest to the lowest, from University to village school.

When analyzed, the theory is found absolutely and utterly impossible. It's puerile. I will bring a few *facts* against some of the theories found in the extracts which I have quoted.

1. First of all, peat beds *do not* undergo a smothered combustion or combustion of any kind. The temperature of a forming peat bed may be taken under any condition, and it will be found that the temperature of the bed does not vary at any time, at any point from its surface to its bottom; it will be at about atmospheric temperature in shade. The bottom, where combustion is supposed to be going on, is if anything slightly below the surface temperature. The temperature of a peat bed, anywhere and everywhere, will be found to be no higher than the surrounding absolutely dry land, and it is generally below it. This alone is sufficient to show that there is no combustion going on in the peat bed. Hereafter I will show the reason why combustion is impossible in a peat bed.

So that there can be no misunderstanding regarding the meaning of combustion, I will take an extract from the Standard Dictionary which says: "Combustion: The act or operation of burning."

2. The *black* appearance of the material of a peat bed *is not due to heat*—or *combustion,* as asserted by geology.

The *black* appearance *is caused by chemical actions.* When the plants, or parts of them such as stems, twigs, limbs and leaves drop, they first fall on the water and float until they become saturated with the water, then they sink. Decomposition then sets in; the volatile gases coming out of the decomposing matter pass off, leaving the carbon content, which forms a very large percentage of vegetable matter. This carbon content then oxidizes. Carbon oxidations are black—these oxidations give the black appearance to the peat bed. The oxidizing of any material in a damp or wet place does not necessitate a high temperature; any temperature over 32 degrees F. is sufficient.

Oxygen is nature's tool for breaking up worn-out useless material, to regenerate it, and to bring it back to a form where nature can use it again.

3. A high temperature is absolutely necessary for the combustion of vegetable matter either in smothered or open form, even when the vegetable matter is dry; but when the material is wet, such as forms peat beds, combustion either smothered or open, is impossible. Water cannot be set on fire. It evaporates as steam before any form of combustion can be brought about. Yet it is necessary to set water on fire to form a combustion of a peat bed. As water cannot be set on fire, before any combustion of the peat can take place, all water must be disposed of, not only in the peat bed but in the peat itself. There is no difference in the temperature for either smothered or open combustion for any particular material. The difference between a smothered or open combustion is a condition which does not affect temperature. In open combustion the volatile gases pass off as superheated gases — flames; they pass into the atmosphere, and when their temperature is sufficiently lowered they disappear from vision.

Their presence still in the atmosphere is proven by the temperature of the atmosphere directly above the flame being so much higher than the surrounding atmosphere. All of the volatile gases which leave the analyzing body do not assume the form of flames, as the Heat Force is not in sufficient volume in them.

In smothered combustion, the concentrated Heat Force is encased, when it has separated the material the super heated volatile gases pass off into surrounding substance, where the Heat Force carried in them equalizes and leaves them at the temperature of the surrounding substances. There are no flames attending smothered combustion, because the super-heated gases do not come in contact with the atmosphere.

4. I will now take one of the many fossilized trees found in coal seams, referring to the following illustration. In this particular case the roots are shown in the underclay, the stems are not broken, but pass through the seam and into the rock above. It is seldom or never that any branches are found on this tree. The reason I shall hereafter point out. This phenomenon is invariably pointed out in geology, but the reason for a limbless trunk is never explained.

My next tree is a common one in a coal seam. Its roots are in the underclay. The trunk is bent over, not broken, and lies flat on the underclay. The branches and even the leaves remain intact but crushed down, showing that some weight bent it over and crushed it down during the time it was green and growing. Even the *tender leaves* are all perfectly fossilized, showing that the tree had never been in a state of decomposition, and this tree is found *resting on the underclay—the bottom of the seam.* Some very beautiful and impressive specimens of this phenomenon are to be seen in the U. S. National Museum, Washington, D. C. I will call especial attention to Fossil No. 10,208. Although small, it is a very perfect example, it comes from the Bellone Mine, Scranton, Pa. This fossil was found on the underclay of a thick seam.

This beautiful little specimen demonstrates beyond all question that it was fossilized while green and growing at the time it was turned into coal, and that there was no rotting or decomposition, nor was the tree ever reduced to a pulpy state.

Before proceeding further I will go back over the geological data, and bring it down into a very concrete form for further observation and argument.

1. "Coal was formed from plants.
2. Each coal seam is a deposit of plants.
3. Coal beds vary in thickness.
4. The material underwent *smothered combustion.*
5. Coal always contains impurities.
6. These impurities are of an earthy nature.
7. Some beds contain too much earthy matter.
8. Some beds have *layers of shale in them.*
9. *Trunks* of trees *project from the top of the seam.*
10. The *underclay* is *formed of mud and soil.*
11. *Roots of trees* are *found in the underclay.*
12. *These roots* are found *in the positions in which they grew.*
13. *The underclay lies directly beneath the coal seam.*
14. *The material was accumulated in the same way as a peat bed.*
15. *Each coal bed was first a peat bed."*

To the foregoing I will make a few additions, which are spoken of in geology, but which apparently are not to be found in geological descriptions of forming coal seams.

An inspection of any natural history museum will corroborate this geological data.

16. Iron Pyrites are common on the walls of coal seams.

17. Sulphur is one of the principal impurities in coal.

18. Sometimes the *Sulphur* is so *excessive* as to make the coal worthless.

19. The great bulk of the *fish fossils* of the Carbonic Era have been found in the coal seams of that date.

20. Fossils of the *Trilobite,* a *Marine Crustacean,* are found in coal seams.

21. Many *other varieties* of *marine life* are also found in coal seams.

1. to 13. of the foregoing are absolutely correct. No. 4., referring to smothered combustion, is correct; but, geology does not tell us the source of the heat to bring about a combustion in water.

A high temperature is required for the combustion of any vegetable matter. Without an exceedingly high temperature to carry off the water and dry out the vegetable matter, it would become pulp, decompose and return to the soil without fossilization. Then there would be no fossilized green leaves found on the underclay of a coal seam.

Combustion, as I see it, is a phenomenon which is an accumulation and a concentration of a volume of the Heat Force, which volume passes into the material, causing an analysis of its elementary chemical compound. The volatile gases are super-heated and pass off into the atmosphere, and when smothered pass into surrounding substances, where the Heat Force leaves them and equalizes with the Heat Force surrounding the area.

Temperature, which is the registration of the volume of the Heat Force present, shows that the heat which was instrumental in the smothered combustion of coal could not possibly have been less than 1,200 degrees F., and phenomena indicate that it was nearer 3,000 degrees than 1,200 degrees F.

A forming peat bed is soil saturated with water, virtually a swamp. Before any combustion could take place all water must be driven out of the soil and the material dried out. Where did the temperature come from to bring about combustion in these mythical ancient peat beds? Such a temperature would be running into thousands of degrees F., ten times as high as the boiling point of water. The water having evaporated and the material dried out, it would immediately be reduced to ashes.

According to geology, fossilization started with the start of the peat bed, which means the water was many times above its boiling point. Boiling water at the roots of vegetation would at once kill the vegetation and all other forms of life. Thus the peat bed would cease forming as soon as it commenced.

The geological theory, robbed of all fancy trimmings, is that vegetation continued to grow for thousands of years in water above 1,200 degrees F. Why the water did not evaporate at this temperature geology does not tell us. Perhaps it was a special sort of water, created to form peat beds, like the specialized ice of the glacial period was formed to bend and twist like a snake, and be as tough as a rhinoceros hide.

Some of the coal seams are 30 and 40 feet thick. The peat beds from which these seams were made must have been hundreds of feet thick or deep to allow for the compression. Thousands upon thousands of years, yes, tens of thousands of years, would be necessary to form a peat bed of such a depth.

Smothered combustion however *did exist,* but, under totally different conditions and circumstances than those ascribed by geology.

The whole of the vegetable matter forming a coal seam was accumulated and deposited in bulk which took only a few days at the utmost, and not tens of thousands of years. When the deposit was made all of the vegetable matter was green and growing.

The smothered combustion commenced directly the deposit was sealed over.

Geology does not inform us how the earthy matter got into the ancient peat beds, or in what manner the slabs of shale were formed in the center of a swamp peat bed or seam of coal.

There were no hills or mountains during the Carbonic Era. They did not appear until very much later in the earth's history. Nor were there any rivers or streams on the earth's surface, during the Carbonic Era, to overflow their banks and carry earthy matter into these ancient peat beds. As a matter of fact, there were no peat beds during the Carbonic Era, and not until after the bulk of the Upper Gas Chambers had been worked out and eliminated.

All of the world's land during the Carbonic Era consisted of mud and slush, just above the surface of the waters, covered with a luxuriant growth of super-tropical vegetation, all of the swamp growth variety.

The presence of areas of shale in the center of coal seams is in itself sufficient proof that a coal seam was never a peat bed. That it is impossible that coal seams were once peat beds is further shown by the fact that no peat beds were formed until after the coal had ceased to be made.

How could a sufficient quantity of earth find its way into the middle of a peat bed and there form a rock, when there were neither mountains to elevate any waters nor rivers and streams to overflow and carry in the material? This is a staggering question to ask of those who uphold the theory that a coal seam was once a peat bed; and the question is made still more difficult to answer when geology informs us that these shale formations in coal seams do not entirely divide or go through the seam from end to end, but rather form a patch in the center. When one knows how coal seams were actually made, the foregoing question is an easy one to answer. Geology mentions trees protruding from the top of the coal seam into the rock above. Fallen logs do not generally float in a vertical position, this would be contrary to the law of gravity. Logs float in a horizontal position, because in this position the Cold Magnetic Force has the greatest possible area of the log under its control.

As the trunks of the trees protrude from the seam into the rock above, it shows, according to geological theories, that the rock was formed upon the peat bed and that this stump was out of water during the formation of the rock. Geology asserts that all such rocks, shales and sandstones were formed by sedimentary deposits.

This induces a bunch of questions:

How long did the rock take to form before it covered the exposed stump?

Would it not take thousands of years to cover some of the long stumps, which protrude above coal seams, by a sedimentary formation?

Why was a rock formed above the peat bed; what phenomenon was it that submerged the peat bed?

Did smothered combustion, which turned this tree into coal, occur during the time it was out in the atmosphere, in the water while the rock was forming around and over it, or after the rock was formed?

I think the foregoing clearly proves that coal seams were never peat beds. The great John Tyndall always ended his arguments by "clinching" them. I cannot do better than to follow so great an example. To do this I will fall back on my personal notes. Geology records the following facts:

Sulphur is found in coal. (No statement explaining how it got there.)

Iron pyrites are found on the walls of coal seams.

Fossils of fishes, trilobites and other marine life are found in coal (but geology does not even intimate how they could have got into a coal seam). I presume that those who wrote the geological theory of the formation of coal thought their theory would read better without the presence of fishes, trilobites and marine life generally.

Were the Carbonic fishes capable of swimming through mud and saturated soil as well as in water? On looking at the fossil fishes found in the Carbonic Coal seams, one is impressed with the fact that they are just ordinary fishes, capable of swimming in water only.

Was the trilobite a burrower of the land, like a rabbit or ground-hog of today? An examination shows that he had no burrowing appendages and could no more burrow into soil than the lobster, if as well. How did the fishes and trilobites get into the coal?

Geology records that trees are found lying on the underclay, practically unbroken, with all their branches and green leaves intact; but does not tell us how a green tree can lie at the bottom of a peat bed for thousands of years without decomposing, rotting and becoming pulp, while over it, all around it and in contact with it, everything was decaying and turning into pulp.

To make a coal seam out of a peat bed the following questions should be satisfactorily answered.

Did the tree ferns, the principal coal trees, grow in water instead of on the land?

How and in what way was the material that forms the underclay collected?

How did the fossilized roots of the trees get into the underclay? Did they grow there?

Was the ground a peat bed at the time they were growing?

Why is it that the roots of the trees pass into the trunk unbroken, and the trunk passes unbroken through the coal seam into the rock above?

Why did some trees bend over on the underclay without being broken?

What force bent these trees over without breaking them?

Why is it that trunks of trees are found in all positions, vertical, horizontal and at every possible angle, in a coal seam?

How did the great number of fishes and trilobites get into the coal seam?

How did the iron pyrites get on the walls of a coal seam?

Geologists may argue that iron pyrites are being formed today by filtration. Admitted; but the iron pyrites found in coal seams are the result of temperature. This is demonstrated by the fact that the iron pyrites found in coal seams vary greatly in size. The size of the crystals is governed by the temperature they are cooled from, and the rapidity at which they are cooled. The crystals formed by filtration are at atmospheric temperature; all are of the same size, and all are large.

Assuming that "a coal seam was first a peat bed," involving long periods of time, the foregoing questions are unanswerable.

One more question. How does geology account for peat beds being formed, one on top of the other, thousands of years apart, as is shown on page 60?

It is all very well for any one to pull down and tear into shreds any pet, orthodox accepted theory, but this in itself does not help to advance science. It only causes confusion, as it does not explain the phenomenon. What does help to advance science, however, is to build up another theory on the ashes of the past, backed with reason, reasonable proofs and natural phenomena—this I now offer.

Forming Coal Seams

To enable me to expound a reasonable theory, showing why and how coal seams were formed, I must first return to the Primary Archaean Rock—Granite. Then by following out the eliminations of the great Archaean Gas Chambers, with surface results, it will readily be seen how coal seams were actually formed, especially with such corroborative evidence as has heretofore been given.

I have previously shown how the old Archaean Gas Chambers were eliminated. To refresh the memory and to avoid referring back, I will reiterate a few lines which cover the necessary points. I showed that when a gas chamber was blown out it left a great hollow, that the surrounding waters flowed in and filled the hole. I will now refer to Fig. 3, page 54. This is a chamber which was drained out through another chamber, and collapsed, the roof falling to the floor.

The great hollow was filled in by great waves of water from all sides. As these waves rolled along towards the center, where they met, they ripped and tore up all vegetation along their paths with the soil, mud and clay, down to the rocks. The waves cleared up everything movable in their paths.

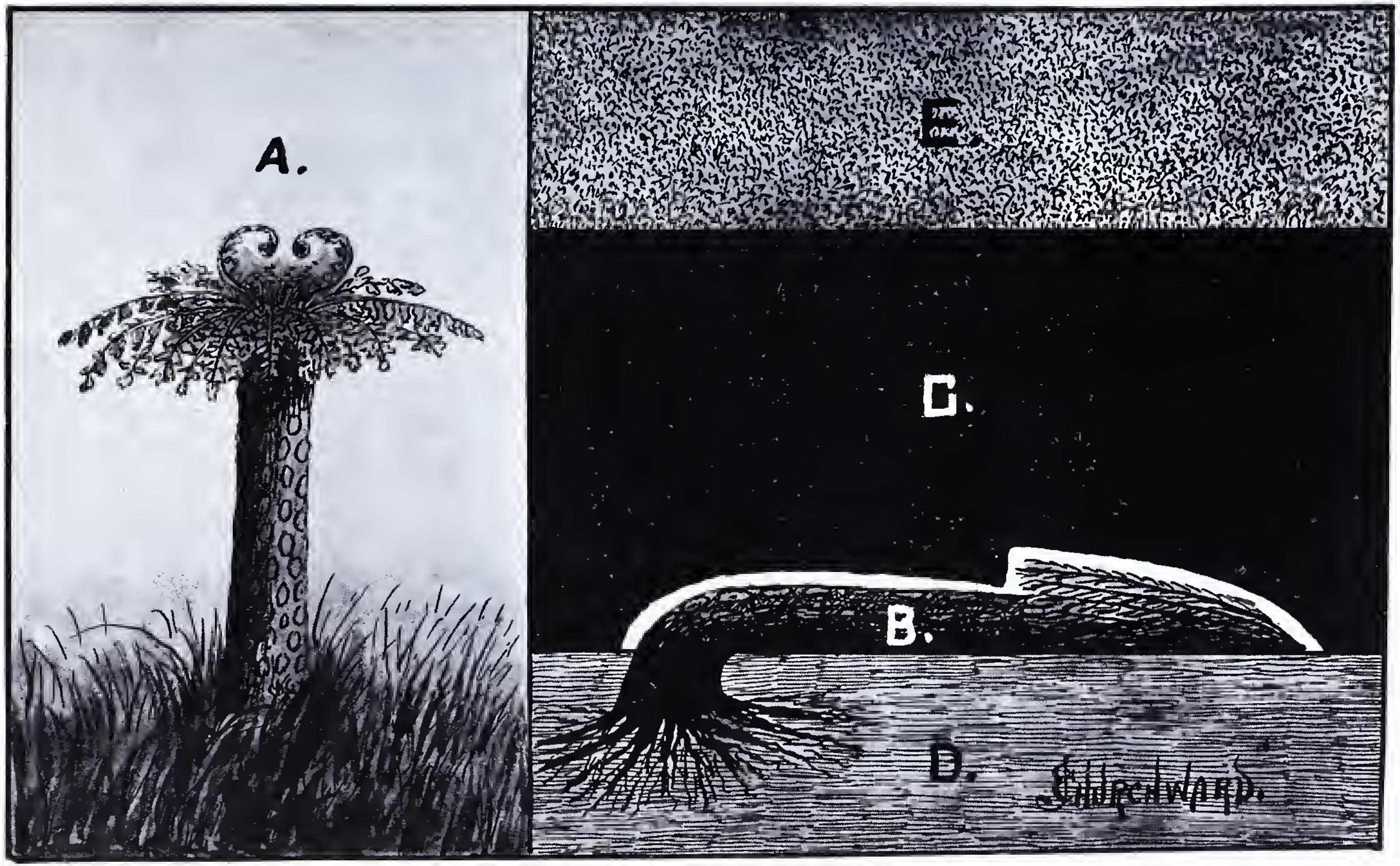
All of this material was carried along in these great roaring, rolling waves; and in them were *fishes, trilobites* and *other marine life,* which were in the waters of the waves when they started, and were powerless to head back against the force of the water.

In the center the great waves met, with their burdens of vegetation, soil, mud, sand, fishes and trilobites. The meeting of the waves was the meeting of two water forces. When two forces of water thus meet, a centripetal force is generated, forming a whirlpool. The center of a whirlpool is a vortex. Through the vortices of the whirlpools formed, all of the vegetation was carried down and deposited on the bottom. The soil, mud, and fine sand having been thoroughly broken up, they were held in suspension in the waters as long as they continued in movement. As soon as the movement of the waters ceased, then the material which had been held in suspension settled down on the vegetation, covering it and sealing it over. This covering forms the roof of a coal seam, and is called by miners the "upper clay."

With such a rough-and-tumble journey as the vegetation went through, much of it was broken up and washed into a *pulp* by the time it had reached the depositing grounds.

The vegetation beneath the whirlpools would not be torn out of the ground, and the soil it was growing in would not be materially disturbed, because the force exerted at this point was a *downward* force.

The branches of many of the trees would be broken off by the weight of the deposit settling around them, leaving the stump standing as it grew. If the deposit was a small



COAL TREES IN SEAM

A. The living tree. B. Position and condition of the tree as found in the coal seam. C. The coal seam.
D. The underclay with the roots of the tree in it. E. The rock above, a fine sandstone.

one, *this stump might protrude through the seam into the rock above.*

Some of the trees, instead of having their branches stripped off, leaving the stump standing, were bent over by the weight of the deposit until they lay flat upon the underclay, *with the branches and leaves unbroken* and intact, *green and growing.*

Tree form bent over lying on the underclay. Some of the mud and clay adhered to the vegetation, and was in the deposit. This forms the *earthy matter* found in coal, which forms the ash and clinkers. Some of the waves passed over muddy and clay bottoms *near* the depositing ground. This material did not travel far enough to be sufficiently broken up to be held in suspension in the seething waters, so it was deposited in bulk between the settling vegetation. These deposits of mud and soil formed the *patches of shale* found in the center of the coal seam.

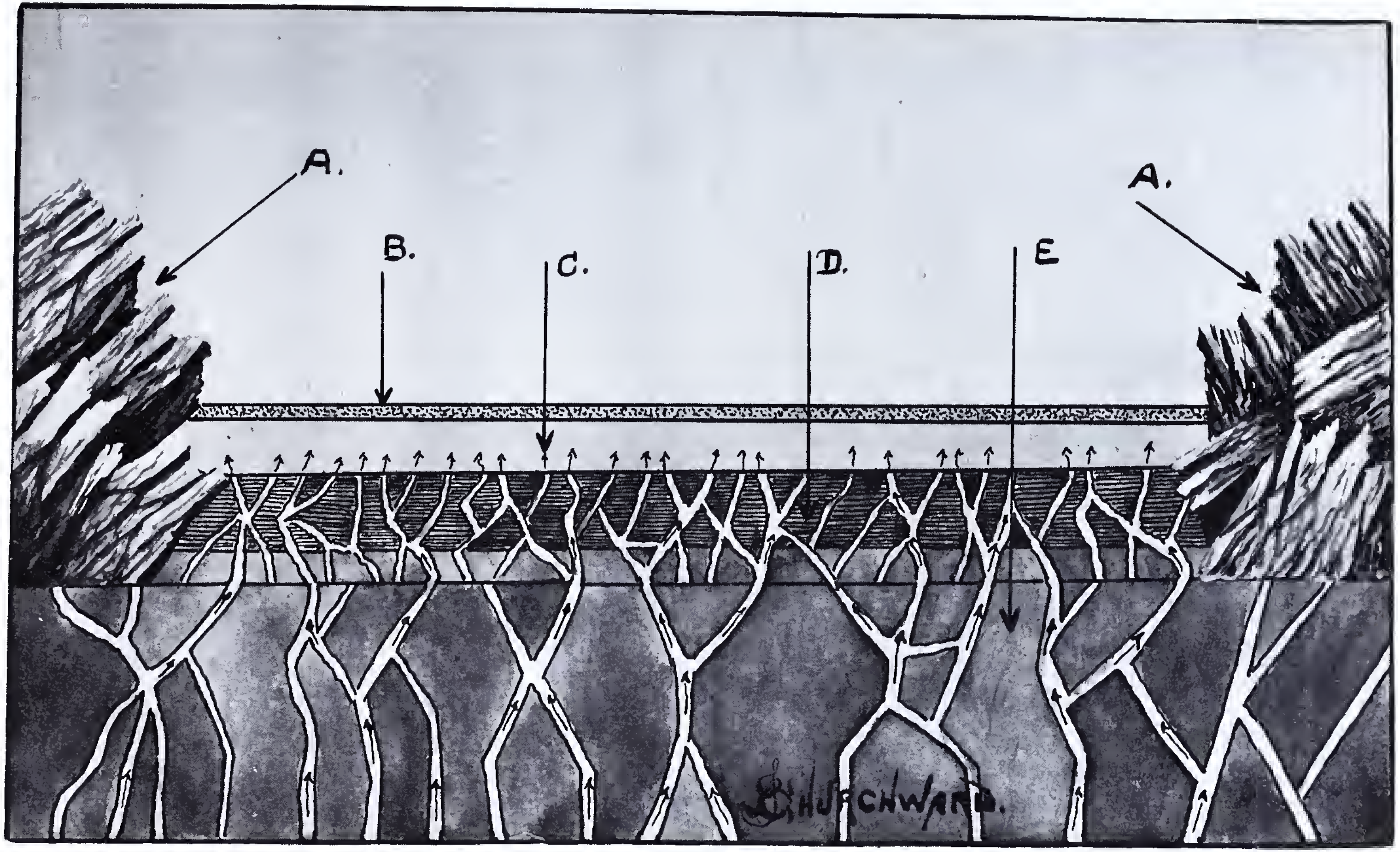
As the trees were not ripped out of the earth where the deposit was made, nor the soil materially disturbed, *the soil formed the underclay* of the coal seam. As the trees were not ripped out of the ground, *their roots remained in the soil* where we find them today, i.e., in the underclay.

I think I have now reasonably shown that the material forming a coal seam was deposited in a few days; therefore the depositing did not extend over long periods of time. I have shown that the trees were green and growing when the deposit was made, and have answered the many questions previously put in a satisfactory and reasonable manner. Four questions only now remain to be answered.

How did the smothered combustion take place?

What was the source of the heat?

How does sulphur get into coal?, and



CROSS-SECTION OF A COAL SEAM AT THE TIME OF ITS DEPOSITION

A. Two walls, sides of the chamber. B. Covering seal of sand, mud and clay. C. The deposit of vegetation. D. The fractured and fallen roof of the chamber. E. The granite rock, with gas connections with chambers below.

How were the iron pyrites formed?

When the volcanic heat reached the deposit of vegetation, it was prevented from passing on by the seal that had been laid upon the vegetation, so the heat was accumulated and concentrated in the vegetation. Added to this heat the rocks themselves were hot through fracturing.

It is perhaps well to point out that the falling of the chamber's roof in no way affected the rock formations below, so that the fissures and passageways from the chamber below were in no way affected; they remained open and available.

The heat which reached the deposit of vegetation through these channels could not possibly have been less than from 2,500-3,000 degrees F., and probably was higher than 3,000 degrees F.

Such a heat was capable of any sort of combustion of vegetable matter, either smothered or open.

As the soil, mud and clay had settled on, and sealed over, the vegetation, the heat was confined. Therefore *it was a smothered combustion.*

The super-heated gases that entered the deposit were volcanic. Volcanic gases carry a large percentage of Sulphur. These gases were the agents responsible for the presence of *Sulphur in the Coal.*

A great proportion of the material forming the seal, without question, originally came from the Secondary rocks, probably some from the Hornblendic Series; thus iron was present; sulphur and heat I have already shown to be present. From this combination the *Iron Pyrites* were formed.

I think the foregoing reasonably answers the last four questions, questions which cannot be answered by the theory that "coal seams were once peat beds."

In my mind there is no question but that coal seams were formed on the roofs of chambers that had been eliminated through indirect emptying, such as I show in picture, Fig. 3 (A) on page 54; Fig. 3 (B) would be far too broken up to permit of a coal formation.

The seal of a chamber might consist of either a shale or fine sandstone, dependent on the character of the ground over which the waves swept.

Where coal seams are found one above the other, with rock intervening, it denotes that each seam represents the elimination of a chamber.

That a rock is found between each seam demonstrates that the land had been a long time out of water to enable, first, a suitable soil to be provided, and second, the development of sufficient vegetation from which to form a coal seam. Geology states that "The thickness of a bed of coal is an indication of the length of time the land remained emerged."

Such an assertion is reasonable, and to a certain extent is correct, but requires qualification.

The mere fact that a coal seam was formed at all shows that the land was long emerged. The thickness of the seam, however, is not governed by the length of time the land was emerged.

The governing factor of the thickness of a coal seam is *the area of land swept of its vegetation, and the density of the growth of the vegetation in this area.*

A lesser factor is the character of the ground on which the seam is formed.

If uneven, it might be that in a valley the thickness of the seam might be 30 or 40 feet, while beyond the valley on its sides the seam might be only a foot or two in thickness, similar to pools and rips in a river.

A CARBONIC DAY

I am now going to take you back, visualizing a time tens of millions of years ago, millions upon millions of years before the foot of man first trod the earth, and eons of time before history commenced to be written. To a time when the earth was making some of her most gigantic strides in development, putting forth her early efforts to sustain terrestrial life. How do I know what took place then? I do not. All of what I am about to say is speculative, but based on fossil remains and certain phenomena.

Around me on my library table are scattered a few old Paleozoic fossils; charts of Paleozoic rock formations are laid out. Holding down papers are sundry pieces of Secondary Archaean rocks with their beautiful, fantastic waves and flexures. A babel of silent tongues are all talking at once, telling me about what happened so long ago. When? In the beginning, from the time of the birth of the earth down to and including the Carbonic Era. Commencing with the time before the waters had settled upon the earth, the rocks had a never-ending tale, telling about a time when there was no blue sky or light, when all was darkness and soundless.

A trilobite got very uneasy at the never-ending tales of the rocks, and intimated that he had a very much more interesting tale to tell. He commenced with: "My last resting place was in a seam of coal." I told him that was no news, for I saw him come out of his coffin under the stroke of the miner's pick. What I would like to know is, how he came into the coal seam, and where from? He then related the time when he was a carefree, happy trilobite, living on the sandy bottom of a sea whose waters were filled with fishes, some huge and terrible, others small, whose time was mostly spent in keeping away from the terrible jaws of the monsters. "Snuggling in the sand beside me were many brachiopods, with starfish crawling around in all directions. Then came a mighty shaking of the earth; the bottom of the sea, my home, went topsy-turvy and I with it. That is all I know." A cunning little carbonic fish that was lying alongside of him on the table called out for attention, as it was going to tell a tale too; a vain little fellow, for he commenced by saying, "I was not always black and ugly. I was once silvery and shining, and a member of a big family. My home suddenly started off on a mad run, and on its way it tore up from the bottom all sorts of things, in which I got mixed up. Sand filled my gills, trees knocked me here and there. At last I knew nothing that was happening around me, and finally woke up where you found me in a coal seam." So I listened to all of the tales of the fossils and rocks, and have so wound all their tales that they appear as one made out of all. Of course it is all a speculation. Such a speculation, however, is fascinating to the many lovers of the ancient, myself among them.

The land, as far as the eye could reach, and for hundreds upon hundreds of miles beyond, was seemingly one vast unending swamp, mud and slush! Slush and mud! The sky line was the low unbroken foliage; for no hills or mountains had yet appeared on the face of the earth. The general tone of the vegetation was dull, sombre, bluish green and monotonous; for, as yet, no fragrant or beautiful flowers adorned the trees and shrubbery.

These vast swamps were reeking with hot, foul miasmas and noxious vapors, constantly arising from the wet, dank, decaying vegetation. The stagnant, ill-smelling waters throughout the swamps were rising in clouds of steam, to mix with an atmosphere more sickening still.

Out of these reeking swamps grew a thick tangled undergrowth of super-tropical vegetation, coarse and dull, but luxuriant. Through this tangle of undergrowth, great tree ferns, lycapods and equasita forced their way, to raise their imposing heads above the lesser foliage.

An overpowering death-like stillness lay over the whole land, for in those days the purling brook had not been born. There were no bleatings of lambs, the merry bark of dogs or the friendly neighing of horses. No little feathered songsters flitted from branch to branch in the trees and bush. Such as these could not exist in the carbon surcharged atmosphere of the Carbonic Era.

The poisonous steam, vapors and miasmas rose from the slush and mud to join each other and cling in poisonous drops on every point of foliage.

O'er this scene the sun was rising red, hot and angry looking, and, as it rose towards its zenith, so the already damp, overpowering, poisonous heat continued to rise with it. The long feathery arms of the tree ferns, and the long graceful tapering leaves of the lycapods began to wilter and droop, thus showing their resentment of the ever-increasing heat.

A splashing in the slush, beneath the undergrowth of foliage, falls on the ear, accompanied by low guttural grunts, like spasmodic rumblings of a muffled drum. It is only one of the scaly monstrosities of the fierce amphibian life which existed in these swamps, expressing his disgust at the heat as he crawls and flounders to some more sheltered spot.

While the sun is angrily mounting the heavens from the east, a black and ominous bank of clouds is rising in the west. This great black bank moves majestically on towards the Sun, as if to attack it. It moves on until it shuts out the Sun, covering the earth with a pall as black as night. Then the Carbonic Storm bursts, the lightning's shafts fill the heavens, the thunder is one continuous crashing, ear-splitting roll, as if the demons of hell are let loose and doing their worst; the flood gates of heaven are opened; the waters fall in a deluge.

A force suddenly arrests the storm, intense darkness still prevails, the carbonic stillness is intensified by the lull of the storm, the heat is unbearable, the stillness and silence ominous.

A trembling quiver passes through the frame of the earth, accompanied by low rumblings, and followed by the rending and splitting of the bowels of the earth. The swamps tremble, then rise and fall, like the waves of the ocean; with deafening detonations huge shafts of fire shoot up, and are met by the lightning shafts in the dark pall overhanging all. Volcanoes are born, and with them the storm starts afresh with redoubled fury.

In the course of time, the volcanoes drained out the gases in the chambers below that were upholding the swamps, and the pillars of flame died down. Then with a mighty crash the swamps fell into the abyss. For hundreds upon hundreds of miles the swamps went down into the bowels of the earth and, as they went down, huge flames of fire ascended around them. The swamps were now seething cauldrons of fire, from which poisonous fumes of sulphur came.

In all directions a distant roaring is heard, ever coming nearer and nearer, and roaring louder and louder. Presently huge walls of water are seen, ripping, rending and tearing up everything that lies in their paths, everything down to the rocks.On they come, laden with vegetation. In the center of the pit, the muddy waters with their burdens of vegetation meet, and here they form whirlpools which carry the vegetation down to the bottom, where they deposit it.

Another great Archaean Gas Chamber has been blown out, another great coal deposit has been laid down for the use of future man, and another shale rock has been commenced on top of it. The storm passes on, the hot sun shines once more, and then *The Carbonic Stillness reigns again.*

CHAPTER V

THE CRETACEOUS PERIOD

EITHER *The Cretaceous Period* was very indiscreet or very erratic in carrying out her share of the earth's cooling; or *The Cretaceous Period* involved an immensely longer period of time, than what has been assigned to it by geology.

As nature has never permitted any erratic movements or eccentricities in the carrying out of her perfect laws, *The Cretaceous Period* cannot be accused of inconsistency. Therefore we must accuse geology as being niggardly in its assignment of time to this Period.

THE GREAT CRETACEOUS REVOLUTION

Geology speaks of "the great Cretaceous Revolution." I can find no better headline, or one more appropriate, for there is no period in the earth's history when such radical changes and developments were made as during the geological Cretaceous Period.

This Period was the pivot or turning-point in the earth's development of all forms of life, not only animals, birds and fishes, but vegetation.

During the Cretaceous, all of the ancient forms of life died out, and the foundations of the new forms that were to appear were made, forms that were hereafter to occupy the earth began to appear.

The changes are clearly shown by fossil remains found in the Cretaceous rocks. These indicate how the earth's temperatures were lowering, and in what directions the elements and forces were working, more perhaps than any other period of the earth's history except possibly the Early Pleistocene. It is clearly and distinctly shown what the forces were accomplishing during the Cretaceous Period.

The preparations for this great revolutionary change had been systematically going on since the Archaean Time down to the time of its accomplishment. All previous changes were but steps leading up to a consummation during this period.

THE LENGTH OF THE CRETACEOUS PERIOD

Geology speaks of *"the Long Paleozoic Time,"* but does not suggest that there is a possibility of the Mesozoic Time being quite as long; on the contrary, most geological works assume that the Mesozoic Time was comparatively speaking a short one; yet the time consumed by the Cretaceous Period alone was without doubt longer than the Later Paleozoic Time, as I shall hereafter clearly demonstrate. I personally think that the Cretaceous Period was nearly if not quite as long as the whole of the geological Paleozoic Time. Time cannot be gauged by rock formations, as I have clearly shown; therefore it must be gauged by temperatures, with life as the register.

During the Cretaceous Period all forms of life were radically changed: animals, birds, fishes and vegetation—the most radical of its kind shown in the earth's history. All forms of life and life in all forms show that: *a tremendous drop in temperatures had taken place between the beginning and the end of this geological period.*

The cooling of a body as large as the earth necessitates time. We must therefore measure the length of this geological period by the drop in general temperatures between the time when the period commenced and the time when it ended. The length of the Period will be in exact proportion to the total drop in temperature. During the Cretaceous Period the general temperature of Temperate North America dropped from a hot super-tropical down to a warm temperature with winters. At the opening of the Cretaceous Period the great reptilian life was at its zenith, dominating the earth, with its greatest expansion both as regards numbers and size. Flying Saurians filled the air, Sea Saurians were the terrors of the deep, the great dinosaurs were kings and ruled the swamps.

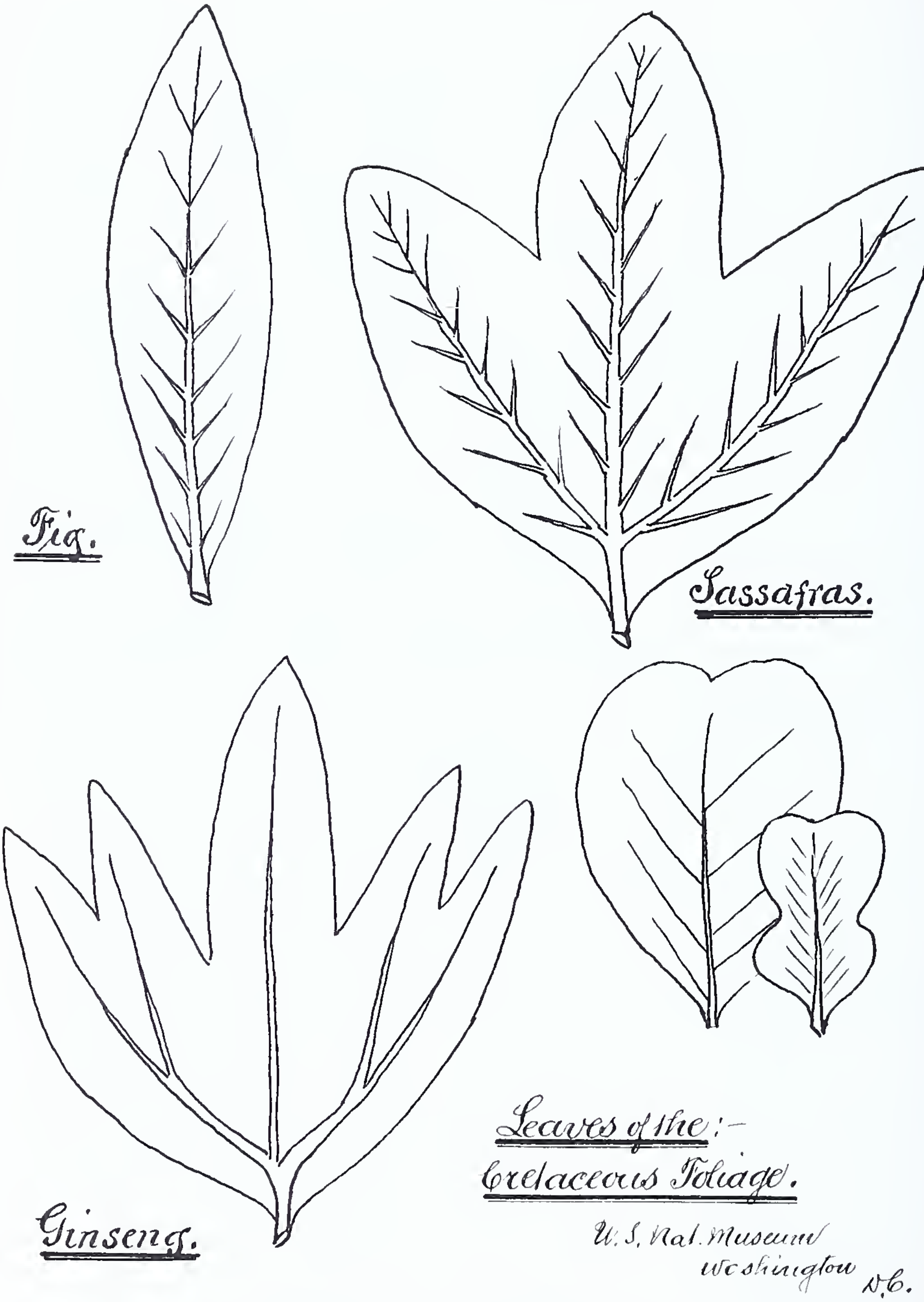
At the end of the Cretaceous period they were all blotted out; they had become lives of the past. Their bones remain to fill our Museums. Thus, during — *a supposedly short period of time* — these great monstrosities dropped from their zenith into their graves.

In the place of this coarse, cruel, terrible, ungainly, scale-covered form of life, a new and radical form of life began to appear, the order of mammals. Thus, while the great reptilian race was going out of the front door to its doom, little mammals were entering their domicile through the back door.

Mammals are more complex, and of a higher order than reptiles. Thus was carried out nature's law, which demands that all new creations must be of a higher order than those they supercede. This is one step nearer the final end when all things will be perfect, even man himself.

Why did the great reptilian life die out? They had no descendants. Geology does not answer this question, but it is answered in "Cosmic Forces," Vol 1, my previous book.

Vegetation showed the great drop in temperature that took place during the Cretaceous period. At the beginning of this period, all of the vegetation was of swamp-growth, super-tropical vegetation, principally ferns, tree ferns, equiseta, cycads and conifers. The first great change shown by fossils took place about the middle Cretaceous when plants related to palms appeared, thus showing that the swamps were beginning to be drained out. In the late Cre-



LATE CRETACEOUS FOLIAGE
From the National Museum, Washington, D. C.

taceous we find fossils of vegetation that grow on dry ground only, and many in marsh-like lands. Among these fossils are plants related to the oak, elm, poplar, beech, maple, willow, sassafras, etc.

Fossil leaves of Cretaceous foliage. Several of the fossils of trees of the Late Cretaceous Period which I have examined show that the year then had winters, or rather a cool season sufficiently low to stop the run of sap in the trees, a winter without ice, probably corresponding to our Florida winters. This is verified by the stumps of the trees showing rings, commonly called "wintered."

These rings do not show in the swamp growth of either the early or middle Cretaceous, because the temperature did not drop low enough to cause the tree temporarily to stop growing.

Marine Life is quite as emphatic in telling us of the great drop in temperature during the Cretaceous Period. At the beginning, although the fish had lost their vertebrated tails and armor-plate and developed a real backbone, they still maintained many of the characteristics of the ancient fish. Towards the end of the Cretaceous, entirely new forms appeared, typical and related to modern fishes, among them being the salmon, perch, herring, mackerel, etc.

I will now see what brought about the condition where such radical changes could be made, such as Angiosperms growing where once Cycads and Conifers flourished. All through the Silurian, Devonian and Carbonic Eras, swamps were being formed as a prelude to terrestrial animal life. All through the Triassic and Jurassic, but little improvement is shown on the late Carbonic. About the middle of the Cretaceous the swamps begin to drain out appreciably, the land becoming marshy instead of slushy, and so this drainage went on to the end of the Cretaceous, when the bulk of the swamps had become soft marshland with hard dry ridges. When any land was actually uplifted, it was only temporary, and the prelude to the submergence of the land again. The actual draining of the swamps was brought about by the blowing out of Archaean Gas Chambers. When a chamber blew out, its roof went crashing pell-mell to the floor, which reduced the level of the waters; and as the level went down, so the swamps drained out.

It is no wonder that the great, cruel, monstrosities of reptilian life apparently died out so suddenly; for first, the temperature became too low to hatch their eggs; and second, the destruction of the swamps eliminated their natural breeding-grounds and homes.

During the Cretaceous period, deposits of coal were made in Colorado, Utah, Wyoming, British Columbia and Vancouver, showing that up to the end of the Cretaceous land was not prepared to be elevated. This did not take place until after the gases had performed their most stupendous task, the raising of mountains.

THE PLEISTOCENE PERIOD

With the gases confined and their forces concentrated they were enabled to raise the mountains and thus *finally to settle to topography of the earth.*

The agents to accomplish the raising of the mountains were *Gas belts.* After these belts had been formed, all gases coming from the earth's center flowed, or were driven, into them. Along each of the belts punctures were made at various spots by the gases. These are the craters of today, and when draining out the accumulated gases they become volcanoes. Thus, the various volcanoes throughout the world are the safety-valves of the earth. When the belt becomes over-compressed by an accumulation of gases, the safety-valve opens up, the volcano becomes active, the gases are drained out and the belt is relieved; thus, with the gases controlled and *finally settled,* the blowing out of chambers ended.

By blowing out the great isolated upper chambers and submerging the land which they were upholding, the *area of the earth's land was finally settled — also the areas and depths of the seas and oceans.*

By going into Final Magnetic Balance the *Movements of her poles became finally controlled.*

With the oscillation of the earth's poles governed, the various *temperatures* in our several zones became *finally settled.*

With the various temperatures throughout the earth finally settled, the *forms of life* which were to continue for all time were *finally settled.*

Some present forms of life will gradually die out and become of the past, extinct. No new forms will appear; only those of use and benefit to man can remain on the earth forever.

The foregoing are only a few of the numerous finals that can be mentioned which are the result of the earth going into final magnetic balance. These, however, would seem to be sufficient to demonstrate the great radical step made by the earth at the end of the Tertiary Era and Pleistocene Period.

CHAPTER VI

MOUNTAINS

WHEN WERE THE MOUNTAINS RAISED AND BY WHAT AGENCY?

GEOLOGY has answered these questions satisfactorily *to itself,* but not to thinking and reasoning minds. The geological teachings regarding the raising of mountains is based on theory only, without one particle of corroborative proof; and as a theory it is impossible because it is not based on natural laws. As a matter of fact, the geological theory is diametrically opposed to natural laws. Geologists assert that mountains were raised by the contraction of the earth's crust during the process of cooling.

If mountains and mountain ranges are the result of contractions of the earth's crust in cooling, why are mountainous regions the areas where all of our volcanic workings on land occur? Why are all our volcanoes on the peaks of mountains, if the crater has not been choked, and why do we not find volcanoes in the middle of great plains?

A MOUNTAIN RISING OUT OF A PLAIN

We find, all over the earth, mountain peaks rising up from plains like thimbles or sugar loaves. Hundreds of rocky islands in various seas and oceans parallel the formation of the sugar-loaf mountain in the center of a great plain, only the islands are on the beds of plains in the oceans. It would be interesting to learn from geologists a reasonable explanation as to why and how these particular formations were made from lateral pressures. Why did not the whole plain go up into a range of mountains? Personally I cannot conceive how a sugar-loaf formation could be made in the middle of a sheet of paper by any or all lateral pressures along its edges, yet this is what geology asserts, and gives the sheet of paper as an example.

Our mountains show that many rocks which are now on the surface have been brought up from great depths from below.

To shrink a sphere by pressure, the pressure must come from without, the exact opposite to the force which raised mountains. The pressure which raised mountains came from within.

The most convincing proof, however, that mountains are not the result of contractions of the earth's crust in cooling is *the fact that no mountains were raised until after the earth ceased cooling.*

The phenomenon of the earth's cooling was fully explained in the commencement of this book, under the headline, The Birth of the Earth.

Another noteworthy phenomenon is found in mountain ranges; we will take the Andes in South America as an example. Here and also among the Himalayas in Central Asia, we find peaks rearing their heads ten thousand feet above the average level of the range. How could any lateral pressure push up these cones and peaks to such a height above the normal ridge of the range? A lateral pressure must necessarily send everything up somewhat evenly, and without high cones and peaks along the ridge line. Another phenomenon to consider is that in all mountain ranges we find many smaller ranges running off at right angles from the main range. How could a lateral pressure be formed to send up two sides of a square which adjoin each other?

Why is it that, when a volcano has completed its eruption, it dies down and later on periodically breaks out again? Where and what is the connection between these volcanic outbreaks and the earth's contractions in cooling? If geology is right there must be one, because it says the mountain was raised by contraction and it is this mountain that is constantly in volcanic eruption.

A most convincing phenomenon, refuting the geological assertion that mountains were raised by contractions as heretofore explained, is to be found in the strata of rocks that form the earth's superstructure. These rocks are many and of various characters. They lie one on top of the other. In places a great number form the strata. They consist of Conglomerates, Sandstones, Shales, Limestones, etc. Geology tells us that all these rocks were formed under water, and that each rock represents a separate submersion of the land.

How was the land submerged on so many occasions? Geology again puts it down to cooling contractions.

Man cannot upset nature's laws, however much he may wish to do so, to sustain some crazy idea that may have come into his head.

The millions upon millions of years that passed between the Archaean Time and the end of the Tertiary Era were spent in cooling and thickening the earth's crust, and in the building upon it of a superstructure of other rocks and soil. At the end of the Tertiary Era the *condition* was perfected for the control of the Volcanic Gases to be called upon to perform their most tremendous and supreme work.

A sufficient thickness of compacted rock had to be formed above the working gases to enable them to raise the land to great elevations without, as heretofore, bursting open the roof of the chamber, thus causing it to collapse and submerge the land. Rocks when thus raised, required base-supporting angles; to stand, therefore, it required a given thickness of rock, free of all pockets and chambers, for every foot of elevation. The final elevation would depend on the area rested on. If the rocks above were of insufficient thickness for the size of the chamber, the roof would—as in ancient times—burst open, collapse and go down. If the rocks were sufficiently thick and the chamber sufficiently small, retaining angles would be formed, which are hereafter explained, and the elevated rocks would remain standing.

Until the rocks were compacted to a sufficient thickness to form base angles when raised, *no high mountainous land could appear nor did any appear.*

From the fact that many submersions of land took place during the *Tertiary Era,* it is decisively shown that, up to the time of the last Tertiary submersion of land, no mountains could possibly have been raised. It is perfectly safe to say that at the commencement of the Pleistocene Period there was no land with an elevation of over 100 feet, *if as much,* on the face of the earth. That is, land which had been raised. Mountain-raising commenced not more than 20,000 years ago, and then only in a preliminary way. The bulk of our mountains have been raised from 12,000 to 15,000 years ago.

Geology tells us that there were two principal periods of mountain raising in the earth's history, *The Post Paleozoic* and *The Post Mesozoic Times.*

Geology tells us that these mountains were the results of cooling contractions. Previously, in the section, "The Cooling of the Earth," I showed conclusively that the earth's diameter has never been reduced through contractions of her crust. The diameter, however, has been reduced, as stated by geology; but not one inch through cooling contractions, but as before stated, through the eliminations of gas chambers. So that now, cooling contractions being eliminated, we must look for some other agent as being responsible for our mountains and mountain ranges. Nature's universal agents, the Volcanic Gases, were responsible for the act.

As the Volcanic Gases were the agents that originally emerged parts of the ocean's bed to form dry land, so later these same agents raised the land still higher to form mountains and mountain ranges. Mountain ranges and gas belts came together, for the mountains were raised to form the belt. This is the reason why we find all mountainous regions subject to volcanic workings. The gases are travelling under them towards their outlet.

I think, however, that mountain ranges lie over the belts which are deep down below the earth's surface and, in a few cases such as the Andes and Himalayas and other exceedingly high mountains, there are two belts lying one underneath the other, with miles of rock between the two. In these cases, the upper one was formed first, and therefore would naturally be somewhat nearer the surface. In Ecuador, South America, the discharging belt is thousands of feet above sea level, although when it was formed it was below the level of the sea. The Andes main belt is probably 10 or 12 miles below sea level, but all belts when nearing their craters rise towards the surface. Lines of least resistance carry them there. Certain phenomena appear here and there which lead one to believe that although the tunnel of the belt still exists under the mountains which it raised, it may be extinct. There may be no gases flowing into it now, having been cut off by a belt which was afterwards formed deeper down, and instead of following the line of the old belt, the gases went off in a different direction from some point along the old route.

This phenomenon induces a question.

Why do gas belts become extinct? This is if they do, of which I am not certain. If any belts are really extinct, they are the ones that were first engaged in mountain making, and lie near the surface. Subsequently other belts were formed deeper down, which cut off their supply of gases. Points that stand out prominently are:

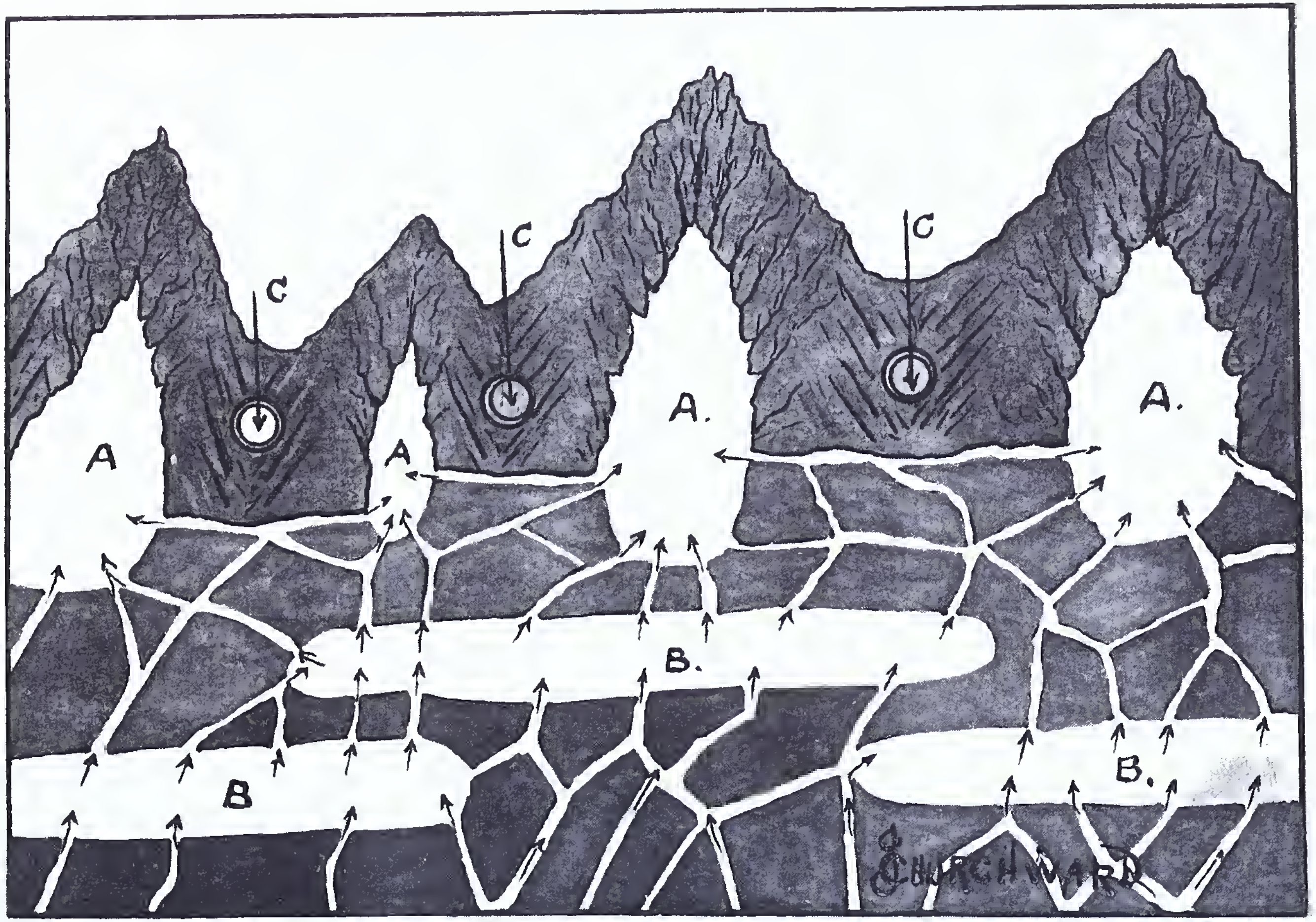
Until the submersions of land ceased, no land could be elevated into mountains.

Until the land could be elevated into mountains, no gas belts could be formed.

Until the gas belts were formed, no land could be elevated into mountains.

The last great submergences of land occurred at the time the gas belts were being formed. This, however, refers to lands which were being upheld by isolated chambers, which were worked out by the gas belts during their formation and the lands thus upheld were submerged.

The cessation of the forming of coal deposits was a guide-post in the earth's development. It pointed to the fact that a *New Condition* was about to commence, and that the condition would be intimate with the workings of the Volcanic Gases. The cessation of the submergences of land at the end of the Tertiary Era showed that *the new*



CROSS-SECTION OF A MOUNTAIN RANGE SHOWING THE GAS BELT

A. The belt under mountains. B. Feeding Chambers. C. Retaining Angles.

condition was completed, and that *a new development would appear.*

The new development was *probably* shown in the form of low rolling ridges of land, the result of the first attack of the gases towards forming a belt. During the Pleistocene the concentrated gases put in their mightiest effort and raised the rocks above them to great altitudes, where no chamber existed between the surface and the forming belt.

Up to the end of the Tertiary Era nothing but low rolling land existed anywhere on the face of the earth. This fact is corroborated by many ancient writings.

Gas Belt Underneath a Mountain Range

It is unquestionable that the belt underneath a mountain range has many parallels, spurs, loops and ramifications. I give a sketch of what probably is the condition.

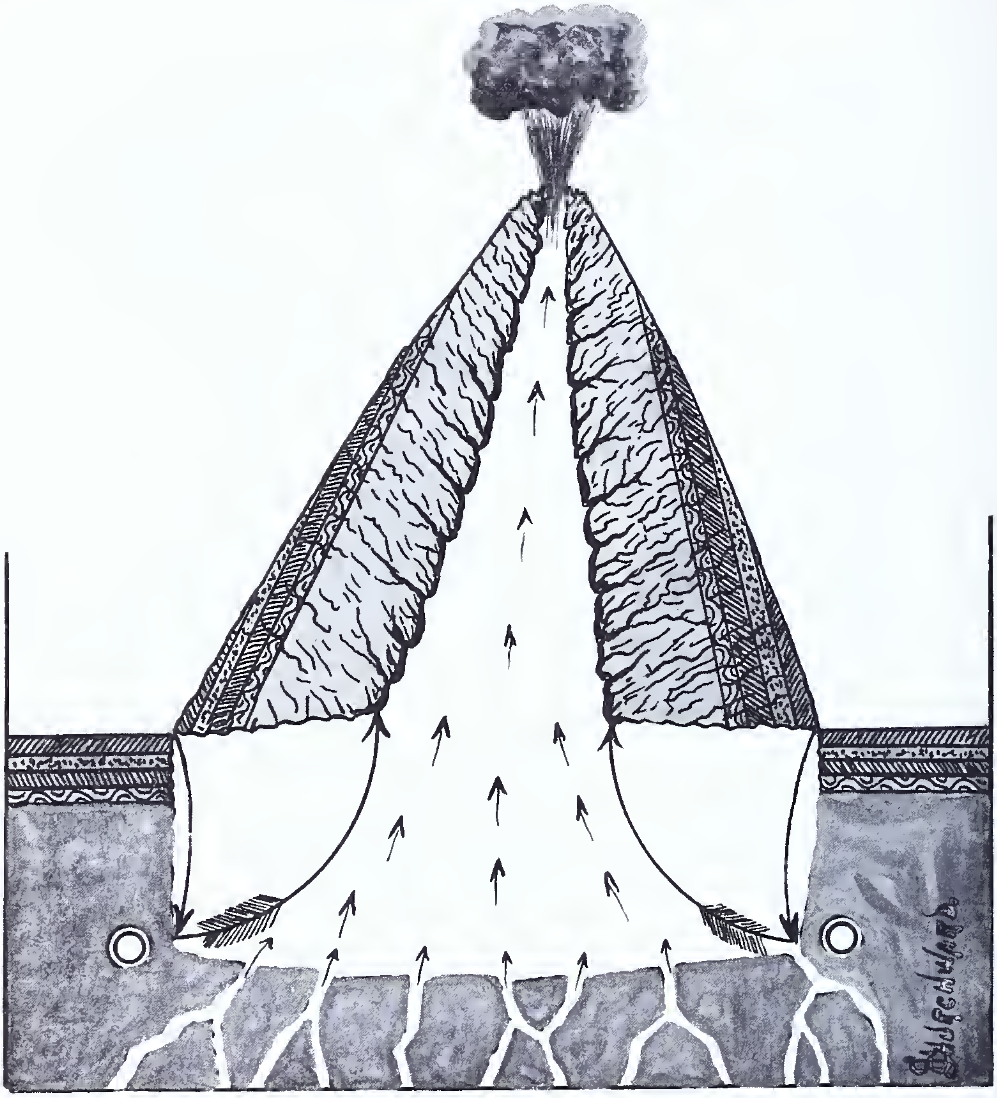
A. The belt shown here as running in parallels and loops, all connected by various cracks and fissures.

B. Live chambers below, from which the belt is constantly receiving gases.

C. The natural retaining angles which keep the mountain standing. They will hereafter be fully explained.

I think it highly probable that many of our mountain ranges were not raised by one single volcanic effort, but by a series of lifts, which carried them to their present altitudes. Eventually one of the peaks became so weak the gases punctured it and formed a volcano. The puncture became known as a crater. The crater ended further raising.

The first to be considered are the three connected chambers which are in line marked A., B., and C. We will next suppose that there are 12 to 15 miles of solid compacted rock above them.



GASES RAISING A MOUNTAIN

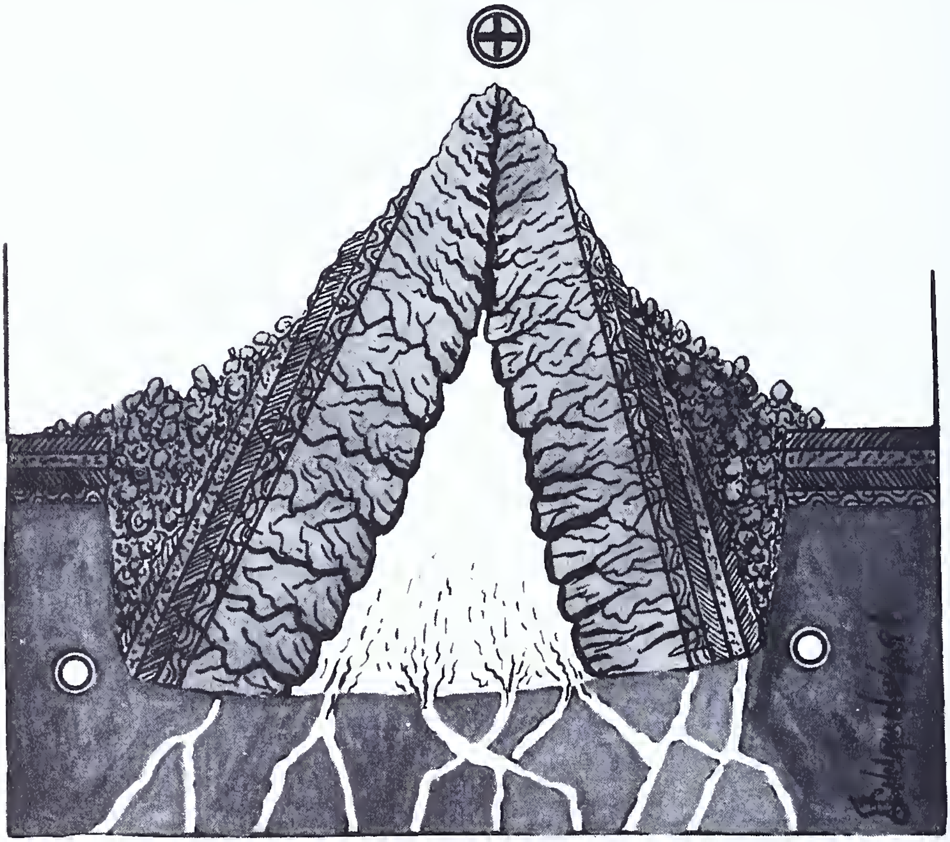
Retaining angles after the gases have escaped and the uplift fallen back.

When the chambers become over-compressed, the gases naturally require more space, and this they obtain by lifting the rock above, as shown. Over-compressions followed one another, and with each over-compression the rocks were raised higher and higher. Owing to the past elemination of chambers, weak lines were in the rocks between the fractured roofs of ancient chambers. Along these cracks was the line of least resistance to the force of the gases, and the rocks were here pushed up in peaks. In one, a weak spot was found, and here the gases burst through, forming *a Volcano*. From the time this volcano was formed the land could be raised no higher, except by the formation of another belt directly beneath the existing one and very much deeper down. As soon as the gases were emptied out, and the bolstering power of them gone from within, the rocks did not, as of old, come crashing down, as there was a sufficient thickness for them to settle back and be supported by the retaining angle.

Against the foregoing, we have to take into consideration what took place in the Malay Archipelago during the 80's, with various similar phenomena reported from various parts of the earth along the lines of the gas belts, where volcanic elevations of as much as 10,000 feet were made overnight. The height of the elevation depends on the depth of the belt and the soundness of the rocks above.

After the volcano had drained the gases out of the belt owing to the angle of the sides of the elevation, and their length, plus the thickness of the rock—they did not crash down as heretofore, pell-mell, but dropped back, end first.

In raising, the rocks were fractured as shown on page 98, marked with feathered arrows. The two ends of the triangle are free, the triangle itself being supported by the gases. As soon as this gaseous support was gone, the ends slid down to the floor, see below. Here they could not spread because they rested against solid rock (marked with double circles). Thus the base of the triangle is locked; it cannot spread to let the rocks above fall down. This diagram shows that mountains cannot crash down from any outside pressure. To destroy a mountain it must be burst open from within; the apex must be opened and forced outwards.



CROSS-SECTION OF A NEW MOUNTAIN

The gases have been drained out of the belt. The support to the land is gone. The land has fallen to the floor in the form of a triangle. ◎ The anchored ends of the base of the triangle. ⊕ The apex of the triangle.

The raising of mountains is purely a mathematical proposition. Their possible height depends entirely on the thickness of the rock above the belt and the width of the belt itself. Mountains could not be raised over chambers hundreds of miles across. Mountains have been raised over long narrow chambers, and over the connections between these chambers.

The raising of land along a belt would naturally be in long stretches, stretches where the gases found the line of least resistance. For instance, take a stretch of 2,000 miles or more long. In some places the mountains would have a higher elevation than in others. This extra height might be due to various causes. The belt might dip and go lower down, leaving a greater thickness of rock over the belt; again, the gases might run into the fractured roof of an ancient chamber, where the resistance would be less on account of a fractured condition. Even if the old roof were well compacted, the resistance to a force coming from below could not possibly be as great as the resistance of virgin unbroken rock.

I do not stand alone in my suggestion that our mountains and mountain ranges were not raised to their present altitudes by one single volcanic effort but by a series of liftings as heretofore described: *Charles Darwin,* "Voyage Around the World"—P. 312. "Moreover, I believe that it is impossible to explain the structure of the great chains, such as the Cordillera (Andes, South America), where the strata capping the injected axis of platonic rock have been thrown on their edges along several parallels and neighboring lines of elevation; except, on this view of the rock, of the axis having been repeatedly injected, after intervals sufficiently long to allow the upper parts of the wedges to cool and become solid; for, if the strata had been thrown into their present highly inclined, vertical, and even inverted positions, by a single blow, the very bowels of the earth would have gushed out, and instead of abrupt mountain axes of rock solidified under great pressure, deluges of lava would have flowed out at innumerable points on every line of elevation."

I think Darwin overestimated the possible flow of lava which might have resulted from raising these mountains to their present altitude by one single volcanic thrust. Lava does not come from "the bowels of the earth." Lava is melted rock gathered by the gases from the bottom, top and sides of the belt, and more especially obstructions in the belt that have been melted to allow the passage of the gases to their crater. Gas belts do not extend down to one half of the distance to the central molten matter which Darwin terms "the bowels of the earth," so that there would be at least 30 miles of rock between any possible lava and the molten part of the earth's center.

Darwin evidently did not take into consideration what lava actually is, or the manner in which it is formed, or the agent that accomplishes it; all of which are quite essential points to consider when estimating what the possible flow of lava might be under given circumstances.

I do, however, most cordially agree with Darwin that our mountain ranges have been raised by working gases, and that certain phenomena place it beyond all question that the Cordilleras of South America were not raised by one single volcanic effort.

This point will be clearly proved in the latter part of this work, "The Earth's Great Gas Belts," with the phenomena given both in the Andes and Himalayas.

That the two greatest mountain ranges on the earth's surface, the Himalayas in Asia and the Andes in South America, were not raised by one single volcanic effort is easily geologically proven. Take the Himalayas, the two Divisions of the Great Central Gas Belt run under them.

One belt was formed long after the other, and is miles deeper under the earth's surface. The same condition exists under the Andes, where the Great Pacific Circuit Belt runs in two belts, one miles underneath the other.

Taking the two geological times when mountains were supposed to have been raised, the Post Paleozoic and the Post Mesozoic, I beg to say they were impossible during these periods of the earth's history, as there was not sufficient rock over the live chambers to form retaining angles to keep the land up. This is geologically proven because during these times coal measures were formed; and coal measures were formed by the submersion of lands, not their elevation.

I shall hereafter show *positively* and *without the possibility of contradiction* that our Western Mountain Ranges are not 20,000 years old. This I shall prove *geologically, archaeologically,* and by *written record. The evidences are incontrovertible!* That immense areas both emerged and were submerged during the Post Paleozoic and Post Mesozoic Times, there is no doubt, but elevations of land during these periods were only just above the water line. Had there been mountains during these geological times there would also have been mountain life, both animal and vegetable. What has geology supplied us with along these lines to sustain its assertions of mountains? All specimens of vegetation, as far down as the Late Cretaceous Times, are of a Super-Tropical and Tropical *swamp* growth. All animals during these times were animals who lived in swamps: amphibians and reptiles, some of whose feet partook of the character of our present-day turtles, like some of the Sauropods of the Jurassic-Cretaceous Time.

Referring back it will be noticed that I have used the word *emerged* and *not raised;* because I feel convinced that at least one-half of the land which appeared above the waters during these periods was emerged through the lowering of the level of the seas. Geology admits that the earth has shrunk, since the beginning, 20 miles; therefore the water level has also gone down at least some 20 miles. Many of the ancient seas were very shallow, as proven by the limestone formations; so that when a great gas chamber was blown out, so great was the volume of water required to fill in the abyss that great areas of sea-bottoms became exposed, and eventually grew into swamps. All other lands appearing above the water-line were the roofs of gas chambers which were being raised previous to their blowing out. The life of this class of land was necessarily short because the next thrust of the gases would puncture the roof.

One of our western mountain ranges was raised before the great gas belts were forged under Central America, but not to its present altitudes: the Rocky Mountain Range. The second lifting of these mountains took place during the time of the Cliff Dwellers, as shown along the Cliffs of the Colorado River. Then followed the Sierra Nevada and Cascade Ranges and finally the Coast Range. What periods of time elapsed between these various raisings? I have found no phenomena that offer even a suggestion of a solution.

The first Rocky Mountain belt was near the surface, and had many volcanoes on it. In Arizona it took a western turn, and went out under the Gulf of California, then along until it arrived in South America, at the Northwest corner of Colombia. This commenced the raising of the Andes.

When the subsequent Rocky Mountain Belt was formed it was deep down, and lifted the land to its present elevations. In doing this it cut off the gases going into the old belt, and so disturbed the rocks that it ceased to be a belt in North America. The New Rocky Mountain Belt did not make the western turn in Arizona, but continued on in a southerly direction on the Eastern parts of Mexico. Further explanation of these phenomena will appear in the last half of this work: "The Earth's Great Gas Belts."

I will now give some geological proofs that gas belts are of recent origin. First I will call attention to

NIVEN'S MEXICAN BURIED CITIES

Niven's Buried Cities lie about 29 miles north of Mexico City. The *altitude* of the present City of Mexico is 7,000 feet above sea level; therefore *the present altitude of these buried cities is* 7,000 feet *above sea level.*

As a geological problem, it is an extraordinary one. Here we find facts arrayed against theory.

Fact 1. A prehistoric city lies 7,000 feet above sea level. It is 30 feet under the surface of the ground, and covered with boulders, sand and gravel. A layer of volcanic ash comes between the buildings and the boulders. The city is on a plain, a plateau between ranges of mountains which are several miles distant.

Fact 2. About 16 feet (varying) above this city are the remains of another, also covered with boulders, sand and gravel, but without volcanic ash.

Fact 3. About 6 feet above this second city are found the remains of a third city, also covered by boulders, gravel and sand, interspersed with broken pottery. Niven does not report the presence of lava in either city, so it is presumable that while the ashes from a volcano buried the lowest city, its lava did not run far. This being the case, it shows that the country was flat at that time. There also remains the possibility that very little lava was ejected.

Ashes alone would not cause such destruction, as Niven relates, of stone and concrete houses. The probable cause why the walls tottered and fell is earthquake, which might have preceded the actual volcanic outburst.

The Troano MS., in describing the earthquakes that preceded the submersion of Mu, says: "Being constantly shaken by the fires of the underneath, which were confined, they caused the land to sink and to rise several times."

The Codex Cortesianus, of about the same date as the Troano MS., says: "The land trembled and shook like the leaves of a tree in a storm."

The civilization of this lowest city was a very high one, as heretofore stated.

How and by what agent were each of these cities buried under strata of boulders, gravel and sand? Volcanoes do not form strata of this material; so we must consult geology and find out. Geology tells us that deposits of boulders, gravel and sand are the work of waters, of immense, fierce currents or waves such as cataclysms, which gather up the stones along their paths, rolling and tumbling them along until the force of the waters dies out.

In this geology is quite correct.

The strata of boulders, gravel and sand which cover these three cities were therefore brought there by cataclysmic waves, and from the ocean.

The waves which brought in these deposits *certainly came from an ocean,* but now we find them *7,000 feet above the ocean,* with mountains surrounding the plateau on which they stand, thousands of feet higher still.

No cataclysmic wave of one-tenth of this elevation could be formed without turning the world completely over. Every country throughout all the earth would have great cataclysms pass over it and all life of every description on earth would be blotted out. As we proceed, the situation becomes more complex and interesting, for it is evident that in past ages three great cataclysmic waves rolled over the valley of Mexico, now 7,000 feet above sea level, each one wiping out all of the people and destroying all of their cities.

That the waves were nearing their end, and had travelled a long distance, is shown by the size of the boulders, which are small, the large ones having been dropped before the waves reached the cities.

The deposits of boulders, gravel and sand demonstrates beyond all question that at the time they were made, the valley of Mexico was only a few feet above the level of the ocean; therefore it is absolutely and most conclusively proven that *during the time that these cities were in existence there were no mountains or mountain ranges between the Valley of Mexico and the Oceans; and that the plateau on which the City of Mexico now stands, had not at that time been raised to its present altitude of 7,000 feet—thus proving beyond all question that our western mountains are of recent origin.*

From various phenomena which I have come across and noted, it is geologically shown that, at the time these cities existed, there was no land in any part of North America with an elevation of over 100 feet above sea level.

Both records and traditions speak of many cataclysms overrunning Mexico and Central America; this area today is one of the greatest volcanic danger spots on the earth's surface, on account of so many belts converging and running over and under each other. If one of the low belts got choked, no one can ever imagine the possibilities.

The volcanic workings in this area during the formation of the many belts were very violent. The belts underneath the oceans caused untold damage, for a belt being formed under the ocean bed would naturally raise the bed, displacing the water above resulting in all nearby land being overrun by great Cataclysms. Egyptian records tell us that Yucatan and Central America were overrun, and their great edifices wrecked, by earthquakes and cataclysms during the forming of the Great Central Belt, and nearly all the people perished.

The thickness of a deposit of boulders, gravel and sand over each of Niven's cities in no way intimates the time that elapsed between each of the Cataclysms. It only intimates the size and scope of the wave, and its carrying abilities. The area of Niven's lowest city he has ascertained to be at least 200 square miles.

It may be claimed by some scientists that Niven's Buried Cities are not conclusive evidence that the earth's other mountain ranges had not been raised eons of time before, and that this evidence cannot be applied to Europe, Asia or Africa. Such a doubt is easily set at rest however, and the most skeptical must be thoroughly convinced if they will only take a walk up Capital Hill, Smyrna, Asia Minor, or a little side trip down the East Coast of Africa a couple of hundred miles south of Zanzibar.

There are many legends throughout the world about the time the mountains were raised and I will quote a few:

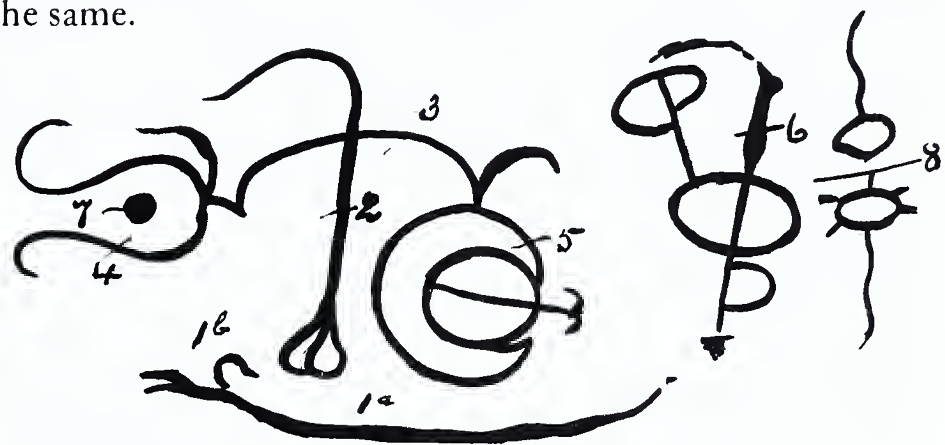
My friend, Chief Peter Wapato of the Chelan Indians, State of Washington, relates that "Long ago, the headman of the Eagles got lost at sea. The Muskrat brought him some mud, which he broke up into 5 or 6 pieces. These he threw into the sea, and wherever they struck, a volcano began to spout fire underneath the ocean, and mountains appeared, including Mt. Rainier, Mt. Baker, Mt. St.

Helena, Mt. Hood and Mt. Shasta. These cones gradually built up a land for the Eagles to land upon".

The Eagle and Muskrat are totem names; therefore they refer to tribes, not to individuals. Subsequently these tribes became subdivided into clans. These clans extend today from California to Alaska. The clans assumed names different from those of the parent tribe. Thus Peter Wapato calls himself a Chelan, but wears the tribal totem of the Eagle on the gauntlets of his gloves.

This legend shows that the ranges of mountains in our western states are of recent origin and that man was living upon the land when they went up.

I will not depend entirely on this legend to prove that the Cascade and Rocky Mountain Ranges are of recent date, for at Rock Island nearby is a Petroglyph asserting the same.



Courtesy of H. J. Cundy

PETROGLYPH FROM WENATCHEE, WASHINGTON

1a. An unadorned serpent, the ancient symbol of the ocean. Being flat and extended, it symbolizes the bottom of the ocean.

1b. Volcanic Forces coming up through the bottom of the ocean.

2. The ancient symbol for Volcanic activity.

3. The land going into a peak.

4. The Hieratic letter U, symbolizing depth, an abyss. This, being on the west, signifies that the abyss is on the west. It is the abyss of ocean depths.

5. The Forces following lines of least resistance in other directions toward the east.

6. A volcano to the east in eruption.

7. An island out in the abyss, probably Vancouver.

8. Two peaks to the east, quiescent.

This petroglyph was probably etched 10,000 years ago and based upon legends that were being handed down.

On his gauntlet—on the back of his hand—Chief Peter Wapato shows a very ancient symbol of the Sacred Four. This symbol was used when temples were dedicated to the Sacred Four, even before the symbol of the Sun was prominently used, so that if the old sage would open up his heart to the fullest, without doubt he could tell us what was happening 50,000 years ago.

He wears a very prominent symbolic jewel on his headband.

This was one of Mu's prominent symbols 50,000 years ago. It was carried into all ancient countries and among all ancient people. It symbolizes the active and passive forces of nature with an esoteric meaning: Resurrection.

Chief Wapato has also another legend—that "the Eagles came to America from across the Great Waters."

In Central Asia some of the tribes date their time from when the Himalayan mountains were raised.

In South Africa the Zulus say that they originally lived in the North, but the mountains, when they went up, destroyed the country and most of the people. Those that escaped with their lives trekked South, and made a new home in what is now Zululand.

The Bible—Psalms: 90:2: "Before the mountains were raised."

EARTHQUAKES

Earthquakes result from blocks in gas belts, and are most numerous near craters. Blocks are caused by the falling together of the rocks forming the roof and sides of the belt. A block occurs with the emptying out of the gases through a crater after an over-compression. With the emptying out of the over-compressed gases in the form of a volcano, the intense pressure against the sides and roof of the belt is withdrawn, and with the withdrawal of this pressure, rocks which have been loosened by the pressure fall into the belt and choke it. The wave through the earth's crust is different than when the gases are forcing the rocks upwards. This difference has been noted by some Japanese scientists who have made the volcanic workings in their country their study; they call it "a vertical shock." In this they are ahead of our own scientists.

Belts are generally, but not in all cases, sealed at the crater after an outburst of the gases, by the falling together of the rocks from the belt to the crater's mouth.

Earthquake shocks vary in intensity, the intensity being governed by the character of the block, and its position in the belt, whether it is at, or close to, the crater, or far away.

Low rumbling sounds are heard coming from the bowels of the earth. Then the land trembles and shakes, rises and falls like the ocean's roll. Then, in awe, we say it is an earthquake! It is the gases clearing a block in the belt.

When a belt is choked elsewhere than at the crater, the gases have to overcome the obstruction in some manner before they can proceed to the crater. If the block is not too extended, as before stated, the gases force the blocking material along and melt it. If, on the way before being melted, the material comes to a narrow lane in the belt, it is blocked again. This block, as a rule, is not serious; an extra kick of the gases sends the semi-molten matter through. These are the little shocks which are generally experienced after the major quake. These minor shocks may continue until all of the blocking material has been melted. It is a phenomenon, corroborating what I have said, that lava ejections are always greater than normal after violent earthquakes have been experienced from the belt.

Instead of lava, actual rocks are sometimes ejected from the crater. These either formed a part of the crater seal or come from a block close to the crater. If the block is too long or too tight, and the gases cannot force it ahead, one of two things happens: either the gases forge around it or they will open up a new volcano somewhere on the belt, which will be at the point of least resistance. There are scores of instances of this to be found all over the world. In the Andes Mountains, over the South American Division of the Pacific Circuit Belt, they are numerous. An earthquake is always the forerunner of a volcanic outburst on the belt in which it occurs. One or more volcanoes may go into action; the time, however, will depend on the distance from the crater where the block occurs, and the volume of gases flowing into the belt. The outbreak may not take place for many weeks; again it might be days only, or even hours. Earthquakes are rude notices that the belt is becoming over-compressed, and that there is a block somewhere in it, and that the gases are working their way to the crater, which will go into action as soon as they arrive.

For over 50 years I have made volcanic workings a close study. In years gone by I ran all sorts of risks to gain information. I have remained near a volcano on the verge of its outbreak, and very much too close when in actual eruption. I have stood on the land when it heaved and rolled like ocean swells. I have been covered with ashes, and have had stones fall all around me; and on one occasion had to rush to high ground to get out of the way of a stream of lava. And now I say to myself, as I look back over it: "What a fool you were." Such a game is not worth playing; the cards are stacked against you; you cannot get your *quid pro quo.*

CHAPTER VII

THE GLACIAL PERIOD

Part 2. First Part in First Volume

In my first book on Cosmic Forces, I gave a description with cuts, maps and pictures, of the Last Magnetic Cataclysm. I showed the cause, based on an old Egyptian writing found in Cairo. I showed a great wave of water carrying mountains of ice, thousands of miles long, rolling down over North America. Up to this time the Forces of the Sun played the leading part. From then on, the Sun did not figure in the result; the Earth's Cold Magnetic Force took charge of the situation. The Earth's Forces now being involved, the balance of the tale belongs to this book: The Earth's Cosmic Forces.

The geological Glacial Period is one of those bizarre, fantastic, mythical theories that has taken strong root in the minds of our present-day scientists. The Glacial Period is history repeating itself. Such scientific misconceptions have pervaded the scientific world all through history and even back beyond historical times, as is shown by the symbolical Tower of Babel; and then there was Atlas disturbing the scientific fraternity until they clubbed together and unceremoniously buried him in the Northwest corner of Africa. The Glacial Period is really modern and up-to-date, for it boasts of having a family of little glaciations, so that there will be some support for it in its old age. Agassiz and his assistants, who framed the Glacial Period Theory and surrounded it with such a corrollary of impossibilities, never studied the origin and workings of forces or natural laws, otherwise they never would have foisted such a raw scientific proposition on an unsuspecting public. That the geological Glacial Period was the last great Magnetic Cataclysm there can be no question of doubt. I have never been able to reconcile myself to the theory of a glacial period or glacial periods, because such a theory involves the upsetting of many well known natural laws, and it is diametrically opposite to the manner in which the great forces are working today and have been so working since the earth had an atmosphere.

I believe that very few who have really *studied* the subject of a Glacial Period believe in it. It is surrounded by too many impossibilities. No doubt thousands *do* believe that there has been a Glacial Period, but they principally are those who have accepted the theory without personal study of the subject, and again because it would be *unorthodox* not to believe it, or at least not to profess to believe it.

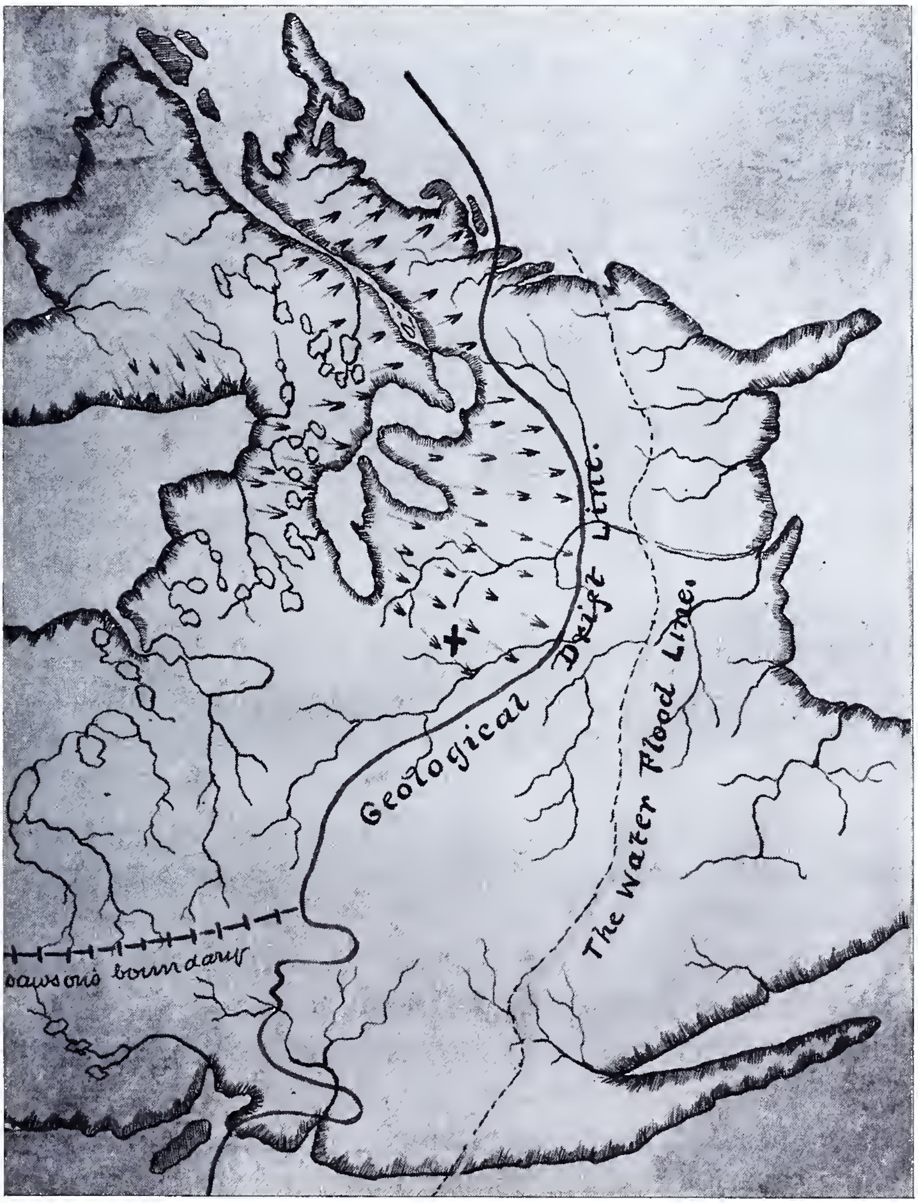
Any theory which upsets natural laws is an error, and any theory based on workings that are not in accord with the workings of the forces is an error. To have had a glacial period, the universal regular great forces would have to be suspended and a new and different set installed temporarily in their places. To have done this, not only the earth, but the whole universe would have been thrown into chaos. Such a thing or condition is inconceivable. The deeper the study one makes of the Glacial Period theory, the more chimerical, the more childish and the more silly it becomes. As an example of what is offered to, and swallowed by, the unsuspecting public, I will now proceed to point out some of the accepted impossibilities connected with the theory of a Glacial Period. I will also show why they are impossible. As a foundation to work upon, I will take extracts from published accounts, selecting James D. Dana's works, which tell us what the phenomena are upon which the Glacial Period theory has been based and built up; and for this purpose I have selected his little book, "The Geological Tale," as this work gives all the necessary data in a very concise form.

The Geological Story—James D. Danna—P. 250 et seq. "Glacia Phenomena. In America and Europe, over the northern Latitudes, sand, gravel, stones, and masses of rock hundreds of tons in weight are found, from a few miles to a hundred miles or more, south of the region whence the were derived. The transported material is called drift, and the stones or rocks, boulders. In North America, the region over which the transportation took place embraced the whole surface of the more northern Latitudes from Labrador or Newfoundland to about the 42° S Latitude, and beyond this in Illinois, Kansas and Missouri."

"Drift regions are also the regions of extensive plannings, polishings, and scratching of rocks."

"The transported boulders and stones are also scratched. Scratches and boulders occur on the top of Mount Mansfield in the Green Mountains *4,430 feet* above the sea, and boulders at a level of *6,290 feet* on the White Mountains in New Hampshire, and the direction of the scratches as well as of the boulder travel show that *the transporting agent moved over both these summits without finding in them any serious impediment,* and then continued its way southward."

"Over the hills it is unstratified drift, the sand, gravel and stones having gone down pell-mell together: in river valleys, within reach of the waters, it is stratified drift: stratified because there the sand and gravel were deposited in flowing water, which somewhat assorted the material and spread it out in beds."



THE GEOLOGICAL ICE CAP
Showing the drift line and Dawson's Western Boundary.

"*Cause of the Glacial Phenomenon.* No known agent is adequate for transportation on so vast a scale — *except moving ice.*"

The foregoing phenomena have been assigned by geology to a Glacial Period, which is supposed to have occupied tens of thousands of years between the end of the Tertiary Era and the beginning of the Pleistocene Period.

Recent geological works state that there have been more than one glaciation during the latter part of the earth's history, thus asserting that there was for a time *a temperature sandwich* in the process of her cooling. I will now reduce the matter to a series of geological assertions.

It is asserted that a glacier many thousands of feet thick capped the northern parts of the Northern Hemisphere, from the pole down to the 40th Parallel North Latitude, and in some places further South still. An end is shown in what is termed glacial drift in North America, commencing at about the 117th Parallel, West Longitude, in Montana. This drift line starts in Montana and takes a slightly north-westerly direction, passing from Montana up through British Columbia, and ends at the shores of the Arctic Ocean at about the 122nd Parallel of West Longitude. It is geologically called *The Dawson Drift Boundary Line.*

Although geology asserts that the ice cap extended completely around the Northern Hemisphere, it is particularly reticent about giving any details about any phenomena found in Siberia and Eastern Asia. I shall not be so reticent, as I am going to tell what I found there when I joined an expedition for that purpose in the late 70's.

The following are facts recorded by geology:

In *Eastern* North America, boulders with scratchings, polishings and markings of rocks are found in *an un-*

broken line from Labrador down to about the 40th Parallel North Latitude in the United States.

The general direction is southerly but varies a little; I will illustrate two lines. The first line leaves Labrador, crosses the deep, broad valley of the Saint Lawrence, at its deepest part; it then goes on and crosses Lake Champlain without filling it in. After successfully negotiating Lake Champlain, it passes on and through Lake George, without in any way affecting that large body of water. From there it passes on to the mountain ranges; first it skips over *4,430 feet* of Green Mountains, gets its breath and takes a run over *6,290 feet* of White Mountains, then nothing stops its progress until it reaches the ocean. Certainly some jumper!

The second line starts from Western Labrador, crosses the broad St. Lawrence valley, then over *7,000 feet* of Adirondack Mountains, down their western slopes and across the broad, deep valley of the Mohawk and Hudson; from here it takes another leap and a jump of many thousands of feet, passing over the Catskill Mountains. Having negotiated these successfully, it proceeds on its way rejoicing.

The Glacial Period theory is diametrically opposite to the Natural Law of cooling down from a molten condition to atmospheric temperature.

It is antagonistic to all laws of gravitation. It eliminates the cold Magnetic Force and stills the great Central Dual Magnet, which governs all temperatures and movements of the earth. It plays havoc with the earth's great force—Heat—in fact, according to the geological glacial theory, something on the outside must have overcome the earth's forces and for a time stopped their functioning.

To have formed an ice cap of only a few thousand feet, instead of the necessary 15,000 to 20,000 feet in any part of the earth, an incomprehensible phenomenon must have occurred; for the earth must have for thousands of years suspended her movements, she must have stopped revolving on her axis; because, had she been revolving, the Sun's rays with their powerful forces would be brought for months at a time on the surface of the earth covered by the supposed ice cap. Then, during the days and months of long sunshine, had the earth been revolving on her axis, the Sun's affinitive forces would have drawn from the earth's body such vast volumes of the Heat force that no ice cap could have been formed in the geological glacial regions without going halfway down to the 40th Parallel. Did the earth cease revolving with the view of forming an ice cap and a Glacial Period? She did not!

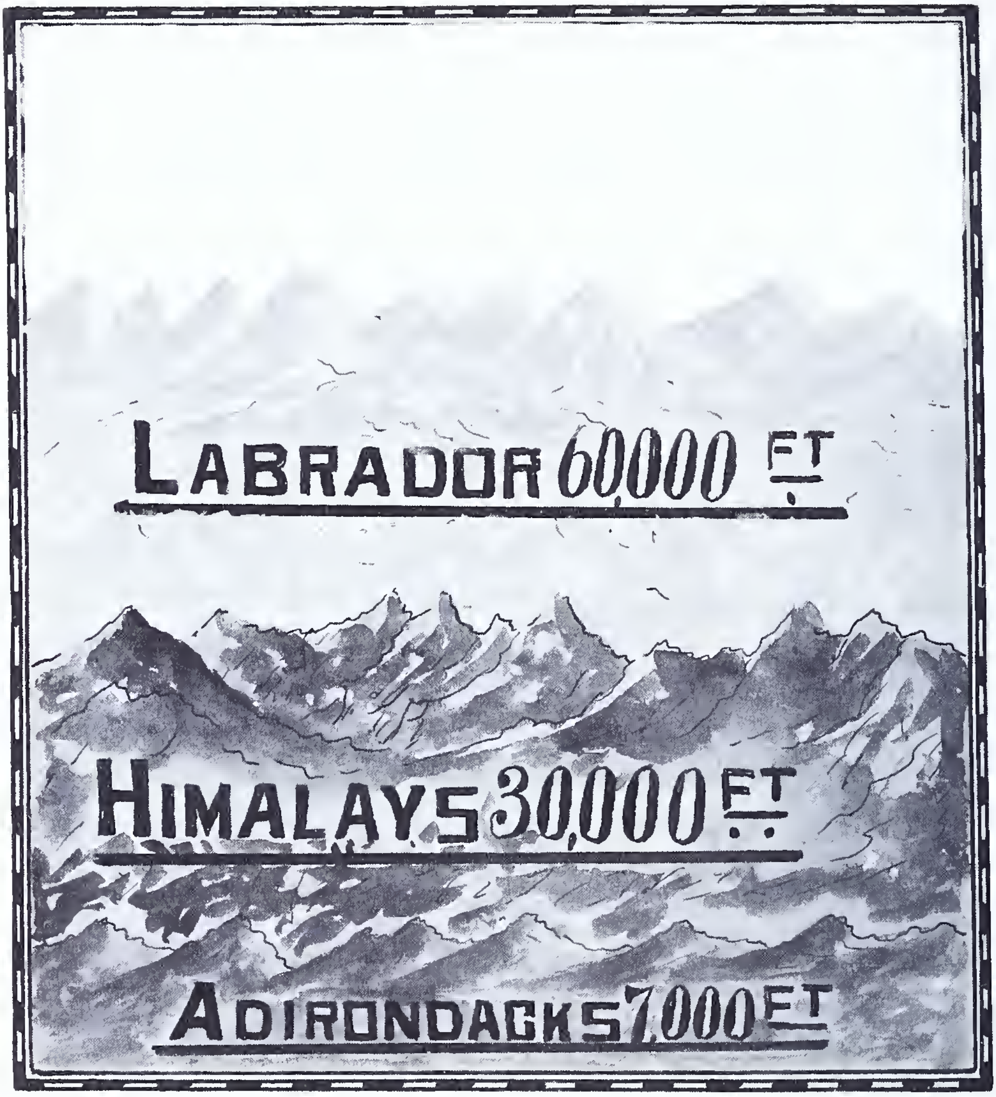
To have had the various glaciations spoken of in recent geological works, the earth must have had a period, unnamed in geology: the Temperature Sandwich or Layer Cake Period. First a layer or period of warm temperature, followed by an extremely cold snap, then another warm day of a few thousands of years, followed by an equal length of time of extreme frigidity. Following, again came a hot time, and so on.

Such a proposition as this involves the workings of the earth's Heat force. In cooling, say, from a molten state to atmospheric temperature, the Heat force gradually leaves the cooling super-heated body, passing out into the immediate surrounding atmosphere, making the immediate atmosphere super-charged. The force then proceeds to equalize and interchange in the atmosphere; the interchange constantly carries volumes of the force further and further away from its source. The force must keep interchanging and proceed further and further from the super-heated body,—otherwise, the immediate surrounding atmosphere would become as high in temperature as the super-heated body itself. This would establish a neutral Zone, no further volume of the Heat force could pass out into the atmosphere, and then there would be a cessation of cooling, the atmosphere and the super-heated body being equalized.

To reheat a body and to bring it up to a higher temperature, *the Heat force must come from without*—except in volcanic workings, and I cannot find any geological work stating that it was volcanic heat which melted the glacier.

From that part of the Archaean Time when cooling commenced, down to the end of the Tertiary Era, the surface of the earth has been gradually and systematically cooling; that is, volumes of the Heat force have been gradually leaving the earth's solid body, passing out into the atmosphere, there interchanging and equalizing. This went on until the earth's crust had solidified deep enough to form a neutral zone. When this neutral Zone was formed, the earth's Heat force was divided. A certain proportion became permanent in the atmosphere while a third proportion fluctuated between the atmosphere and the earth's crust. This fluctuating volume is governed by the volume of exhausted force returning to the Central Magnet and the volume sent back in a regenerated form. The regenerated forces are drawn out of the earth's body into the atmosphere by the Sun's affinitive forces.

The volume of the fluctuating heat force, that is, the volume that a part of the time is in the earth's body and a part of the time out in the atmosphere, is governed on parallel lines with the oscillation of the pole; therefore, no violent or very unusual temperature changes can possibly have taken place during the whole period of her cooling.



COMPARATIVE HEIGHTS OF THE MYTHICAL LABRADOR AND MODERN MOUNTAINS

Consequently it is *impossible* that we could ever have experienced a *temperature sandwich* as described by geology.

The earth's cooling has followed natural laws from the beginning. There never has been a recollescent period in her cooling. The earth's cooling has always been slow, gradual and very even, and there never has been a stopping or a backward step, or a sudden jump forward. Nature's system, governed by laws, has prevented it.

The geological glacial period theory includes a range of great mountains in Labrador, Canada.

According to geological theory, these Labrador Mountains were raised especially and expressly to give the great glacier its first boost to send it ripping and tearing down over the United States; as geologists say that the glacier could not have commenced its slide without the aid of these mountains.

The Labrador Mountains, however, unusual as it may seem in mountains, had a conscience; for when they saw the horribly mean trick they had played on a friendly neighbor, they became so thoroughly ashamed of themselves that they sank back again into the body of the earth, and so thoroughly effaced themselves that today not a trace or mark of them remains to show that they ever existed.

The theory of Labrador Mountains is another one of the grotesque inventions connected with a glacial period, one of the most obvious impossibilities, for, at that period in the earth's history when the glacial period is supposed to have existed, there were no mountains on the face of the earth, nor had there ever been up to that time. Mountains were the last great development in the completing and perfecting of the earth.

It is said that if a thing is worth doing at all, it is worth doing well. The inventor of these mountains must have had this in mind when he raised the most Majestic range of Mountains that the earth has ever known. He failed, however, to give us their elevation. Being a little curious about it, I made a calculation, which can be checked off by any surveyor or engineer. Water will not drain off fast at a fall of 1 to 25, ice to slide requires much more. Take the distance from Labrador to the 40th degree South Latitude as the base of the triangle. Now calculate the altitude necessary at the peak of the triangle for this slide. I got to 60,000 feet and then stopped, yet I was not at the top of these mountains.

An elevation of 60,000 feet is more than twice as high as the highest peaks in the world today, which are on the Himalaya Mountains in Northern India, over whose foothills and lower slopes I have passed many a time. 60,000 feet, however, was not the total height of the Labrador Peaks, as there was at least a thickness of ice of at least 20,000 feet on top of them, so that the ultimate limit of the mountains, plus ice, was over 15 miles, or about one-third of the way through the earth's atmosphere. Can anything more grotesque, absurd, and impossible be conceived?

Some of our glacialists may object to my estimate of a 20,000 foot thick ice cap, and may contend that the glacier was not of such a thickness; but let us look at the ground it went over.

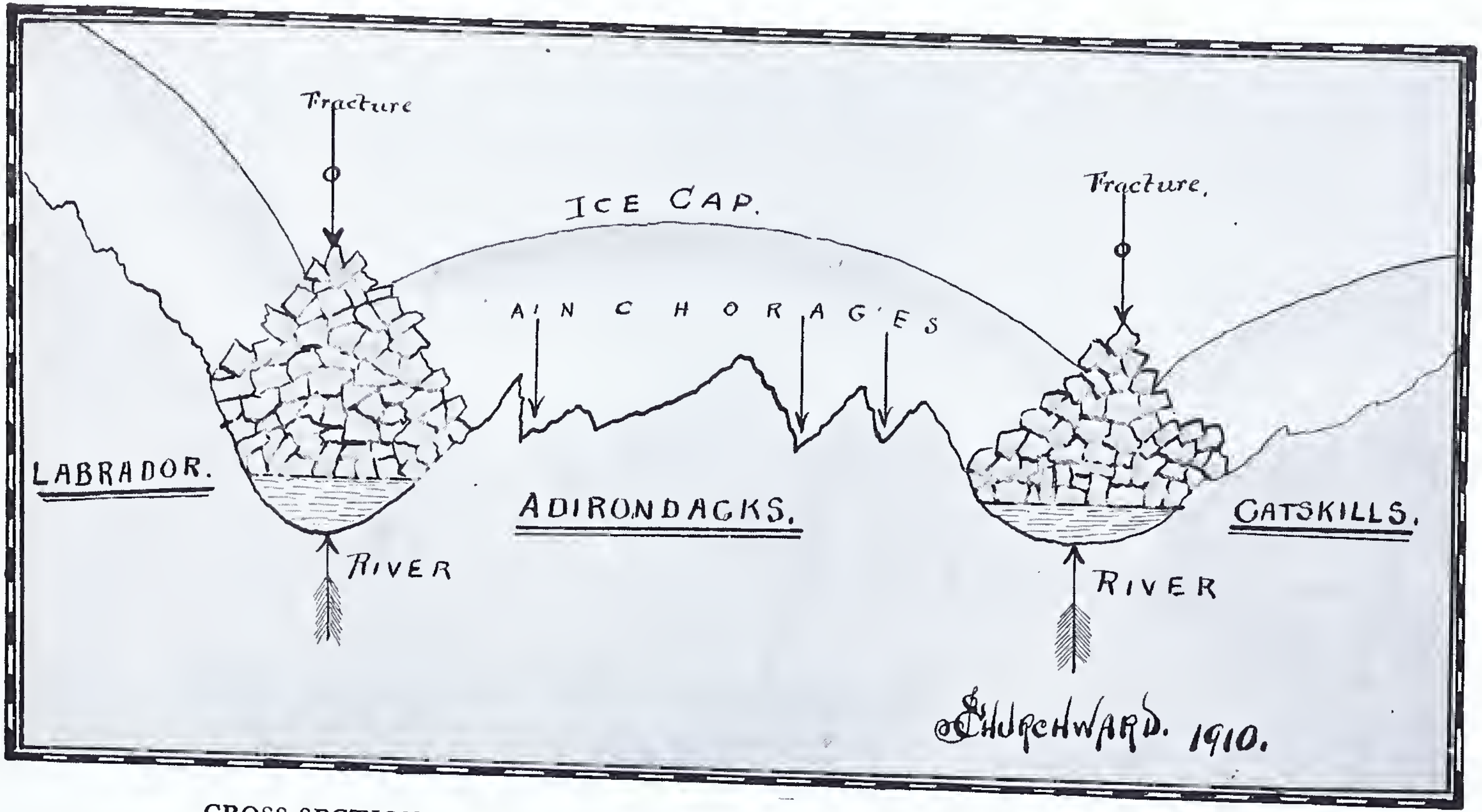
From the bed of the St. Lawrence River to the top of the highest Adirondack peaks is 7,000 feet; thus when the glacier arrived at the St. Lawrence valley, 7,000 feet of its bottom would be shaved off to fill up the valley to form an even plane. Each valley in the mountains would also have to be filled in, which would shave off a few thousands of feet more. After leaving the Adirondacks the Hudson and Mohawk valleys would take their toll as the Catskill Mountains on the other side had to be passed over, altogether 16,000 or 17,000 feet would have to be shaved off the bottom of the glacier before it would be ready to proceed along merrily. After negotiating the Catskills, not more than a 3,000 foot thickness would be left; little enough, as all will acknowledge, for the stupendous work it accomplished before it got tired out, lay down and gave up the ghost.

Now let us glance at another absurdity.

To form an ice cap around the Northern parts of the Northern Hemisphere down to the 40th Parallel, of a thickness of 20,000 feet, would require more water than now exists in the Arctic Ocean, North Atlantic and North Pacific Oceans. Where did the water come from? and where has it gone to since? The water which formed the Northern Ice Cap could not have come from the South, because the South Pole was imitating her northern sister by dressing herself also up in an equally imposing ice cap. Between the two, there was more water used in forming these two lumps of ice than now exists on the face of the earth!

In all geological maps connected with the Glacial Period, arrows designating the path of the Glacier start from Labrador in a southerly direction, cross the St. Lawrence valley, over the Adirondack Mountains, then across the Mohawk valley and the Hudson valley, over the Catskill Mountains and then on to about the 40th Parallel North Latitude.

For the sake of argument and example, I will now suppose that those mythical Labrador Mountains did actually exist at the time of the mythical glacier, and that the transportation of the great boulders was accomplished by the



CROSS-SECTION OF THE COUNTRY FROM LABRADOR TO THE CATSKILLS sliding ice, which went skidding down over the United States, treating high mountains and deep lakes with the greatest contempt, as suggested by Dana who says: "The transporting agent moved over both summits (Mt. Mansfield 4,430 feet and White Mountains 6,290 feet) without finding in them any serious impediment. Taking the western line, which I have previously given, the first *impassable* obstruction to its progress would be the St. Lawrence valley. Here it would be firmly anchored with a 7,000 foot thickness of ice. For the glacier to *slide,* it would have to bend at an angle of 45 degrees and at places sharper than 45 degrees. To do this, this glacial ice must have been as plastic as putty and tougher than a rhinoceros' hide. The chemical composition of ice does not permit of this phenomenon. Being ice, it would do exactly what ice does today. When bent by the weight of ice behind the valley, it would fracture and then commence to pile up. Thus the slide of the glacier would have been stopped, and the 40th Parallel would have known nothing about it. Even supposing it passed over the fracture at the St. Lawrence valley, the deep valleys of the Adirondack Mountains and the Hudson and Mohawk valleys would, every one of them, put an end to the slide.

Proof positive has thus been shown that it was *not* a sliding glacier which transported the great boulders.

In showing the impossibility of a glacier sliding from Labrador to the 40th Parallel, we are confronted with another geological problem. The arrows on the map show an unbroken line of drift from Labrador down to the 40th parallel in New York, these lines being marked throughout by boulders, planings, scratchings and polishings.

I have shown that the supposed glacier was securely anchored by valley anchorages, and therefore could not slide. Now the question arises, when the tops of the ice cap had melted down so as to expose the tops of the mountains, why did not the water from the southern part of Labrador and the St. Lawrence valley run down the valley of the St. Lawrence, which lies in a northeasterly direction, instead of in a southerly direction?

As stated before, the course of the St. Lawrence River is nearly north, the line of the boulders nearly south, clearly showing—according to geology—that these glacial waters ran *uphill over the mountains* instead of downhill along the river course.

Was the potency of the great Central Magnet suspended for the occasion? Just to allow Canada to foist upon the United States a great surplus of ice? *Absurd and impossible!*

Some glacialists with whom I have had friendly arguments concerning the supposed Glacial Period, to overcome the St. Lawrence fracture which I have pointed out, asserted that the valleys were first filled with ice and frozen up, upon which the glacier proper was formed free of all anchorages. This enabled it to slide unimpeded to the South. As well as my memory recalls, I put the following questions. I also give the answers received.

Q. Then the glacier was formed on top of an ice plane, and when it slid it was on this ice plane, and during its slide it never came in contact with valleys to hamper or hold it back?

A. Yes.

Q. Then, as the sliding glacier never once touched the actual ground anywhere along its course, how were the boulders formed and transported? Was the moving glacier magnetic, attracting and carrying along the rocks and stones underlying the plane?

A. The boulders were transported by the meltings of the valley ice after the glacier had passed over.

Q. Then the boulders were carried from their places of origin to where we now find them, by the waters formed by the valley ice melting?

A. Yes, that is how the boulders were transported.

Q. Did the valley waters run up or downhill?

A. They naturally ran downhill.

If the boulders were transported by valley waters, then the Professor's assertions make the invention of the mythical Labrador Mountains pall into insignificance. His proposition, shorn of all frills, boldly states: That all laws of gravity were outraged, the earth's Cold Magnetic Force suspended, and for once water ran uphill; for, the valley waters must have climbed mountains thousands of feet high, dragging along boulders of hundreds of tons each in weight, and in some cases taking them along for hundreds of miles, across valleys, over mountains, for these mountains and valleys now lie between their place of origin and where they now rest. What force lay behind these valley waters and the boulders to enable the waters to accomplish this herculean task?

The Other Side of the Northern Hemisphere

We will now leave the regions of North America and Europe to see what glacial marks can be found in Northern Asia, which embraces the other half of the Northern Hemisphere. Our discoveries there will be the coping-stone on the geological structure I have built up, proving geologically that there never was a glacial Period.

In North Eastern Asia, Siberia especially, and prominent along the Lena River Valley and watershed, are very distinct geological markings showing that at the end of the

Pliocene or beginning of the Pleistocene, and at the very time when the supposed ice cap was covering all of the Northern parts of the Northern Hemisphere, *a great flood of water without ice, coming from the south, rolled in a northerly direction over the great plains of Manchuria, Mongolia* and *Siberia.* The wave *ended in the Arctic Ocean.*

Had there been an ice cap covering the northern parts of Asia, these waters could not have rolled north, they would be running uphill; neither were the mountains which now intersect the land in all directions, in existence then, because the waters would have been unable to pass them. This Asiatic phenomena shows that, over one-half of the Northern parts of the Northern Hemisphere, water and ice rolled in a southerly direction and over the opposite parts of the Northern Hemisphere a wave, of water only, passed over the land, going in a northerly direction.

If geology is correct in asserting that an ice cap covered the whole of the northern parts of the Northern Hemisphere down to the 40th Parallel, why was there no ice in the Asiatic Wave, and why did it come from the South and roll to the North? These are questions glacialists cannot answer.

They are incontrovertible evidences that when the supposed ice cap was covering Europe and North America with tens of thousands of feet of ice, in Northern Asia, on the same parallels of latitude as the supposed ice cap, the climate was temperate and mild, with only ordinary winter ice; for it is shown that at the time there was an abundance of temperate climate vegetation, with myriads of temperate climate animal life living upon it.

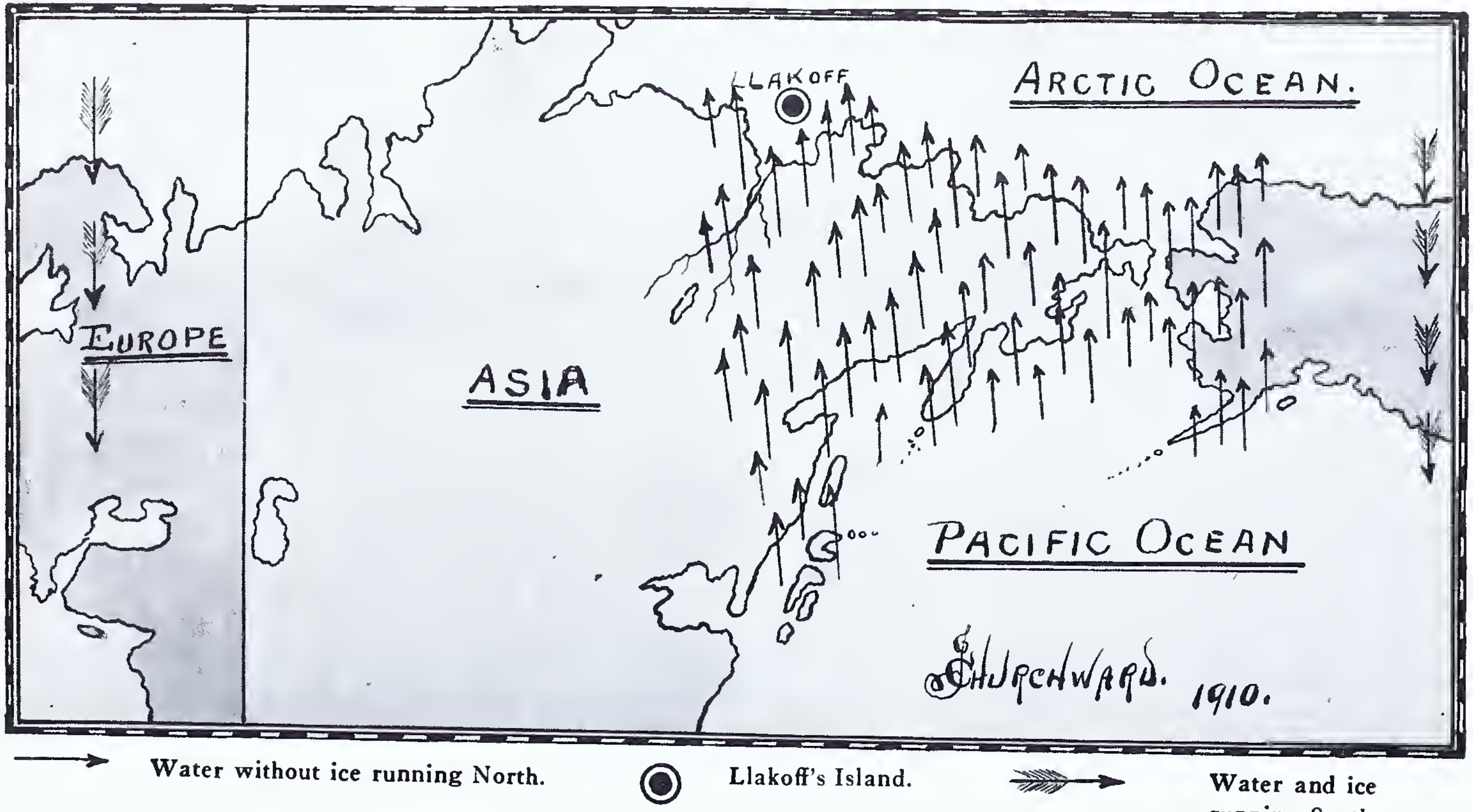
When this great Cataclysmic wave of water swept up over the north-eastern parts of Asia, it gathered up the great animal life which roamed the plains—among these animals being an untold number of Pliocene and Pleistocene Mammoths—and carried them up to the Arctic Ocean, and there at the mouth of the River Lena deposited them in bulk. Their bones now form *Llakoff's Island* which I have marked on the accompanying map.

Had there been ice accompanying the Asiatic wave, the bodies and bones of all the animals would have been ground to a pulp, as they were in Europe and North America, and then Llakoff's Island would never have appeared upon the map.

That the climate was mild and temperate in the north-eastern parts of Asia, during the time of the supposed ice cap in North America and Europe, is shown by the animal life which was existing in north-eastern Asia at the time. That the vegetation was in abundance is shown by the number of animals it was sustaining, as shown by Llakoff's Island, for without it such a vast number of big animals could not have existed.

Geology must admit, upon these evidences, that to sustain the theory of a Glacial Period in Europe and America, that while one-half of the Northern Hemisphere had an ice cap thousands of feet thick the adjoining half on the same parallels of Latitude was enjoying a mild and temperate climate sustaining myriads of animal life in addition to Man; or geology must admit that the theory of glaciations is an error: *which will they do?*

The temperatures of the various regions of the earth's surface are governed by the angles at which the Sun's rays fall on her surface; therefore, as the angles at which the Sun's rays strike the surface of the earth in the Northern Hemisphere are the same on the same parallels of Latitude, whether it be in Europe, Asia or North America, it



MAP SHOWING THE ASIATIC WAVE OF – WATER ONLY – RUNNING NORTHERLY clearly follows that the same temperatures will virtually prevail on the same parallels of Latitude in Europe, Asia and North America.[1]

As it is shown that a temperate climate existed in North Asia, it proves that an equally mild climate prevailed both in North America and Europe at the same time on the same parallels of Latitude, and this time was when Europe and North America was supposed to be under thousands of feet of ice; therefore the geological assertion that a great glacier covered North America and Europe is erroneous.

All geological phenomena found in Northern Asia are satisfactorily accounted for by following the waves of the *Last Magnetic Cataclysm.*

More interesting still is the fact that when that great overwhelming cataclysmic wave rolled up over the northeastern parts of Asia, the whole country was thickly populated by man in an exceedingly high state of civilization. The Gobi Desert of today was then an exceedingly fertile land, with great cities built upon it. The people were called Uighurs, and the country, The Uighur Colonial Empire. The Catastrophe occurred when the earth's First Great Civilization was at the peak of its magnificence. Various Oriental traditions record that the destruction of the Uighur Empire occurred 17,000 years ago.

Their capital city was situated in what now forms the Gobi Desert. This extremely anciety city now lies beneath 40 to 50 feet of sand and gravel, carried there by the waters of this flood. This flood wiped out the Eastern parts of the Great Uighur Empire, which stretched her motherly arms from the Pacific Ocean across Asia and into Eastern

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[1] There are slight variations of temperature on the same parallels of Latitude throughout the world. These variations are due to currents, either water or atmospheric.

Europe. The Uighurs were the forefathers of all of the present-day Aryan races.

At the time of this great flood, the gas belts had not been formed, nor the mountains raised. The eastern coast of Asia was totally different then to what it is now.

It may be said at this point that I have not yet accounted for the boulders being found on the tops of the mountains in the drift region, although I quoted Dana as noting it; and as I pointed out the impossibility of their being carried to these elevations either by ice or water, or both combined, it is up to me to say how they got there, for there they are, and some force was responsible for their positions. The answer is shown as follows: When the great wave of water and ice rolled down from the North over eastern North America, boulders were made in the manner heretofore pointed out. As the force of the water died down, they were dropped all over the drift region. At that time there were no mountains, so they were dropped along the plains. Subsequently a great gas belt was formed, running up through eastern North America to Labrador, and then on to Greenland and Iceland. The Mountains of eastern North America were raised by the gases in forming this belt. I have called it The Appalachian Belt.

With irresistible force and fury the waters and ice rolled on, crushing and grinding into a pulp everything that lay in its path. For thousands of miles this monster of destruction extended back, for it included all the ice that had been forming around the North Pole for thousands of years.

From the crest of a towering wave, a mountain of ice is hurled down upon the jagged surfaces of the edges of an old Archaean Gas chamber that had heretofore been blown out and eliminated. With contemptuous fury the great wave gathered up the splintered rocks, then rolled and tumbled them along for hundreds of miles as if they were mere pebbles or grains of sand. This rude tumbling of the splintered rocks made boulders out of them, some of which were hundreds of tons in weight.

Eventually the great wave began to lower and lose its momentum, as is the case with all temporary forces. As the wave began to die down and lower, eddies were formed in various places, here the ice and drift settled promiscuously. When the waters had completely died down and the ice melted they left in these spots *unstratified* drift, composed of gravel and sand. The bulk of the wave having passed on, the remainder became huge rushing currents of mixed matter, water, ice, gravel and sand, small boulders and other drift. These great rushing currents generally followed the courses of river beds; at places, however, they found new courses. As these currents began to weaken, so they began to drop their loads; the first to be dropped being naturally the largest and heaviest material, then gradually the lighter and lighter, until it came down to sand, so that along the valleys and river courses we now find these deposits *stratified*.

Along the courses taken, the passing ice and rocks scratched and planed the stationary rocks, leaving scratchings and planings which are in evidence today.

Many years after this great Cataclysm had passed over the land, the gas belts began to be formed. In forming, in many cases, they raised the land above into mountains and hills.

As the surface of the earth went up, so the boulders lying on the land went up with them, and are now to be found on the sides and tops of these mountains. This is why we find boulders on the sides and tops of the Adirondacks, Green and White Mountains. It was not the geological glacial ice, which was plastic like putty and tougher than a rhinoceros hide, that carried them to their present resting places.

THE APPALACHIAN BELT

This belt raised all of the mountains and hilly land in eastern North America. Out of plains these mountains were raised. Thus, 'twas volcanic workings alone that carried the boulders to the tops of the mountains.

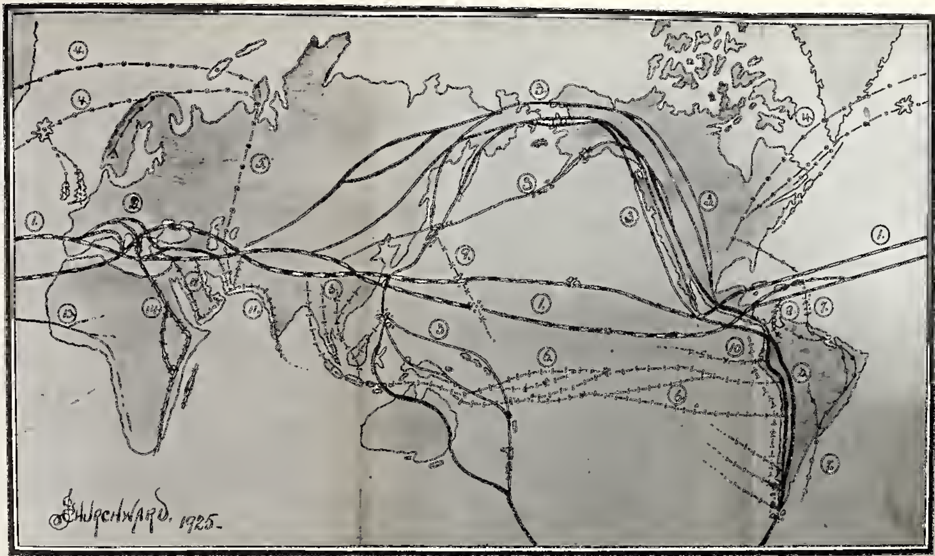
I have now shown how the ice came down to the 40th Parallel; I have shown how the boulders were made and transported, and how the ice scratchings were made on stationary rocks.

I have accounted for the drift being stratified at places and unstratified in others, and in doing this I have followed strictly the natural Laws of Creation. And I have conclusively proved, satisfactorily to myself, that what has been called the Glacial Period was the last great Magnetic Cataclysm.

A cataclysm is an *event* and does not involve a long period of time.

There being no particular *period of time* involved, *There was no Glacial Period.*

History has never recorded the greatest tragedies that the earth and man have gone through.



KEY MAP OF THE EARTH'S GREATEST GAS BELTS

1. The Great Central Belt.
2. The Alps and Balkan Division.
3. The Pacific Circuit Belt.
4. Appalachian—Iceland—Scandinavian Belt.
5. The Ural Mountain Division.
6. The Malay—Southern Pacific Cross Belts.
7. The Brazil—Guinea—West Indian Belt.
8. The Colombian Spur Belt.

DETAILS COMMENCING AT CHAPTER VIII

9. Ladrone—Japanese Belt.
10. Galapagos—Spur Belt.
11. Persian—Hindu Belt.
12. Asia Minor—Arabian Belt.
13. West African Belt.
14. East African Belt.

There are many other small connecting belts which are not given in this general key.

PART II

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COSMIC FORCES

The Great Gas Belts of the Earth

Chapter VIII

VOLCANIC GASES AND THEIR WORKINGS

As I have previously stated in the early part of this work: "The Volcanic Gases were placed in the Primary Rock for a specific purpose; further, that had they not been so placed, not a foot of land could ever have appeared above the surface of the waters." Volcanic gases were placed in the primary rock granite for the following purposes:

To raise the rocks forming the beds of the waters above the surface of the waters.

To break these rocks and pulverize them, so that out of them soil could be formed.

So to reduce and break up the rocks that life germs could be formed out of the product.

Finally, so to perfect the land that man, the ultimate creation, could live upon it.

During the millions upon millions of years from the formation of the earth's initial crust, down to the time of mountain raising, the gases raised the rocks, over and over again, each time reducing them to a finer and finer character.

When the gases and oxidation had reduced the rocks to the consistency of soil, other Cosmic Forces commenced their work. This work having been accomplished, it became necessary to confine the gases and to bring them under control, so that they could not, as heretofore, periodically turn the whole earth upside down.

This contingency had been provided for at the beginning.

As I have previously stated, after the Upper Chambers had been blown out down to certain depths, leaving a sufficiently thick compacted rock above to be elevated sufficiently to form triangles with retaining angles, the gases formed long tunnels or belts in the crust of the earth, with safety valves (volcanoes) to take care of accumulated gases.

GAS BELTS

For the benefit of those who are about to read this part of this book, I will give a short synopsis of their origin before beginning to plot out on the earth's surface the lines which the principal belts follow.

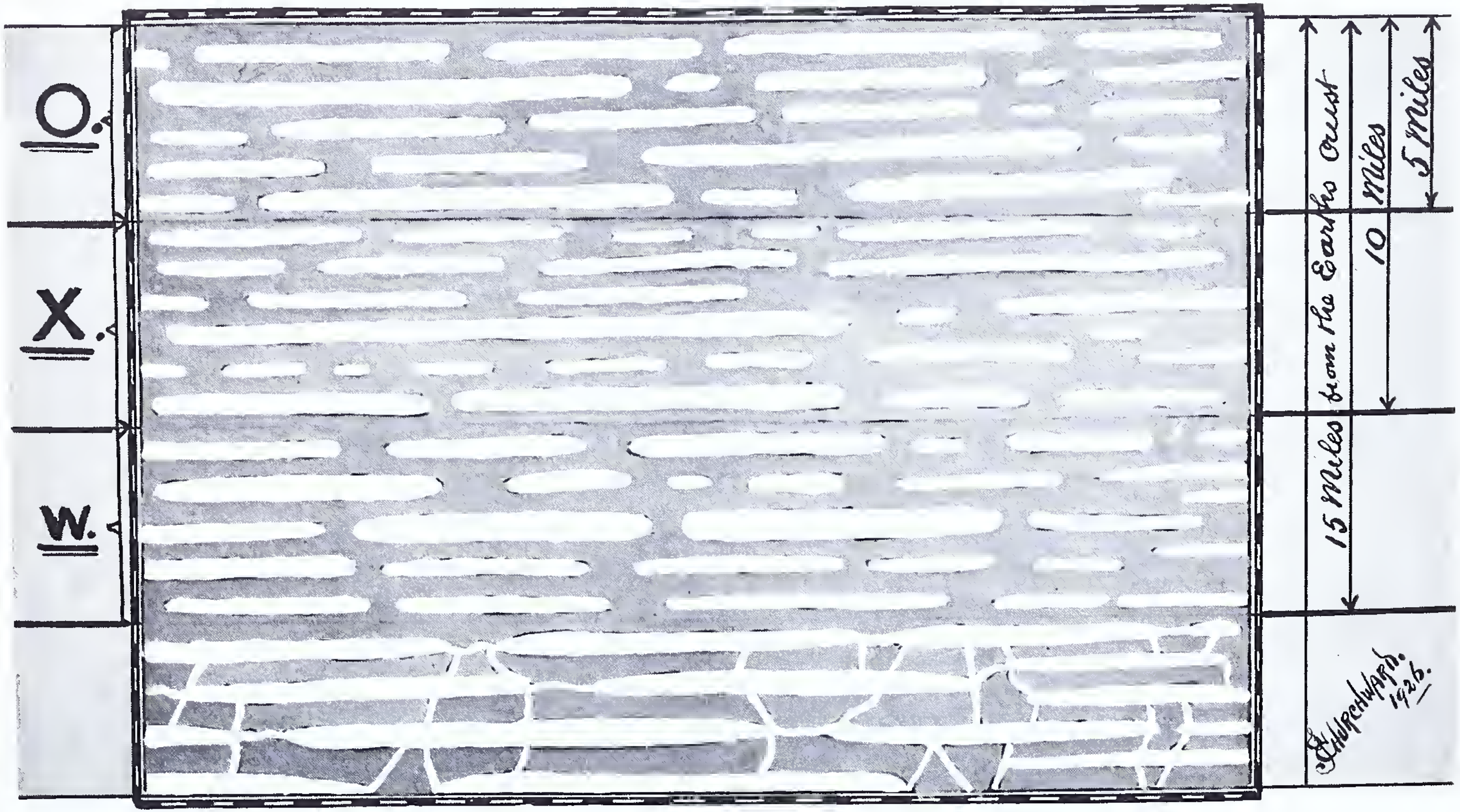
To intelligently explain their formation so that the ordinary layman will understand the phenomenon, I have drawn a cross-section of the Granite Rock, showing how the gas chambers probably appeared in it before the upper ones were eliminated. I have divided this section into three series, designating them *O, X* and *W*.

O represents the upper series, extending from the earth's surface to a depth of 5 miles.

X series run from 5 to 10 miles below the earth's surface.

The series *W* runs from 10 to 15 miles below the earth's surface. These three series form section 1. Then comes the second section of another 15 miles, only the upper series of which are given. This takes in from the earth's surface to a depth of 20 miles, the maximum depth of any belt from the earth's surface.

Belts usually have been forged along the chambers situated in the upper series of section 2, which lies between 15 and 20 miles below the earth's surface. In my illustration, I have shown these chambers connected with one another by fissures, cracks and tunnels. The chambers above are not drawn as being connected, simply to differentiate be-



CROSS-SECTION OF THE GRANITE ROCK AT THE BEGINNING. THE FOUNDATION OF THE EARTH'S CRUST TO A DEPTH OF 15 MILES.

tween the chambers that will be blown out and the chambers that will form the belt.

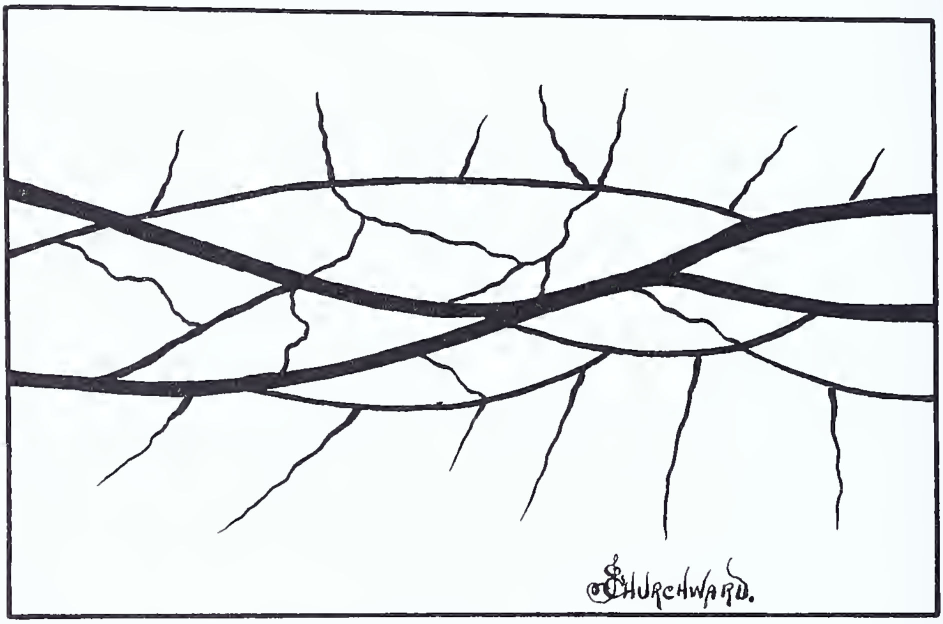
All chambers in the first two series *O* and *W*, would be eliminated by the fall of their roofs to their floors, and all roofs would certainly fall as their supporting or bolstering gases were withdrawn, because there would not be a sufficient thickness of rock to form a triangle with base supporting angles.

Whether a chamber can stand after the gases are withdrawn is a simple mathematical proposition, depending on the area of the chamber and the thickness of the roof over it. A very small one might stand, but a large one, impossible! Thus in the third series, *W*, the small ones might stand, but the fall of a big one would be certain, and with its fall all above would crash down.

Our gas belts did not always exist. They could not exist until a certain thickness of compacted rock lay over what became a belt chamber, with a resistance sufficient to force lateral workings by the gases instead of only vertical as heretofore. The gas belts commenced to be formed at the beginning of the Pleistocene, and the work continued on until about 11,000 years ago. Old Egyptian, Hindu and Mayan writings all speak of the effects on the face of the earth resulting from their forgings. Sunken and buried cities that are well known to archaeology are the grim reminders of the tragedies caused by belt-forging, and along the lines of all the big belts are found these ghastly reminders.

Gas Belts show irregular depths from the earth's surface. At one point they may be up to within 10 miles of the earth's surface, and then work down to 15 or 20 miles below. This can be accounted for by the fact that the chambers are seldom in a direct line, but generally a little up or down from the preceding one. Their lines are not in exact level from the earth's surface.

Without doubt many of the gas belts were being forged through the bowels of the earth at the same time, and some of them were completed more rapidly than others. It is also a certainty that, subsequent to the first formation of the belt system, others were forged and ran directly beneath the first ones. These last are our deepest belts.



PROBABLY A TYPICAL FORM OF A GAS BELT UNDERNEATH A MOUNTAIN RANGE

This particular diagram is based on a section of the Andes Range, South America.

A belt seldom runs as one single tunnel. As a rule there are many parallels and loops, with spurs running in many directions. No belt runs in an absolutely straight line, and I have found none that runs diagonally throughout its whole length. After going diagonally for a short distance, they invariably settle down to either North or South or East and West.

Hereafter I give a series of maps of the principal gas belts of the world; some of which are well defined and all are based on Volcanic Workings during the past 50 years.

From these maps it will be seen that many belts cross each other. I have called these crossings; at other points they appear to run into one another, these I have called junctions. At places there is a perfect network of junctions and crossings, where they run *one underneath the other.*

This fact led me to believe that very high mountain ranges, like the Himalayas and the Andes, have more than one belt under them. A close observation over a long period confirmed my belief. The first belt raised the land a few thousand feet and the second belt, deep down, sent these mountains up to their present altitudes.

I have conclusively proved to my own satisfaction that there are *Main* and *Feeding* belts. The difference between the main and the feeder is: the feeder empties its gases into the main, while the main empties its gases out through its volcanoes. There are therefore no outbursts on feeders, but they quite often supply us with earthquakes: as examples earthquake shocks occur in New England and in Great Britain, but in neither place are there ever any outbursts or volcanic eruptions. An outburst, however, invariably occurs at Mt. Hecla, Iceland, after an earthquake shock either in New England or Great Britain; it is only a question of time.

It is probable that many of the first formed belts do not exist as belts today, especially where another belt has been forged directly beneath it. I think that this is the case with the Himalayas, and I *know* it is the exact opposite in the Andes. The first belt in the Andes was not destroyed or put out of commission by the forming of a second belt directly underneath it, because the volcanoes on the old belt are still the active ones, showing that the more recent belt became the feeder to the old one.

It must be thoroughly understood that the maps which I give are *comparative only*. They are like railroad maps, drawn from point to point. I do not presume to say they are accurate in all details; the actual belt may be miles away from the lines which I have given them; they are, however, somewhere in the neighborhood.

Information of any sort has been most difficult to get, and generally unreliable from either Africa or Central Asia. No records of earthquake shocks or volcanic outbursts can be regularly obtained from these countries.

I have records of shocks following each other in a line hundreds of miles long, and have as many as six duplications along some of the lines.

Shocks might follow one another through Cochin-China. The outbreak will be in Japan. Shocks in the eastern Asiatic mountainous regions always end in outbursts in the North Japanese Island, and are followed by outbursts of volcanoes in the Aleutian Islands and southern Alaska. Earthquakes on the Rocky Mountains end with an outburst of Orizaba, eastern Mexico. Earthquakes in the Cascades end in the western Mexican volcanoes.

Earthquakes in the Coast Range Mountains end with one, sometimes two, of the Colombian volcanoes of South America going into action; but the most reliable of all are the Ural Mountains. The first quake starts north, and every few days they follow one another in a southerly direction until they arrive in eastern Persia, then the volcano at Herman goes into action, and there are no more earthquakes for a time on this line. I have seven duplications of this.

Earthquake shocks in the southern Pacific and parts of

Central America, and parts of the Malay Archipelago, cannot be traced to any particular belt. In these areas, belts run into and cross each other in all directions, so that I have found it impossible to say which belt is affected, or which volcano will go into action.

I have every reason for believing that under all mountain ranges the belt assumes many parallels, loops, junctions and spurs, typical of my illustration. One of the most frequent questions I get about gas belts is: "How deep down are the gas belts?" Their depths vary greatly. Some are deep down, 18 or 20 miles, others much less. I *think* their *average* depth is from 15 to 18 miles. No gas belt could possibly be formed and hold at a depth of 25 miles. When approaching their volcanoes, they rise towards the surface. At the volcano they are only a few miles down. I know of two instances where they are even less than a mile.

I will now show my gas belt maps, as I have made them from various volcanic phenomena occurring along these lines during the past 50 years.

At places a belt will be seen to split and join again further on. This phenomenon I have called a loop, and while apart, parallels. There are also little belts, feeders, coming into the main belt, and these I have called spurs.

As shown in my illustration, page 142, a range of mountains as a rule does not have a single tunnel only under them but are full of splits, junctions, parallels and spurs. Generally, however, there is a main tunnel which leads to the volcano. This volcano may be only a few miles away or it may be thousands of miles away. There is no regularity in this respect. Neither is there any regularity about the number of volcanoes on a belt; there may be only one, again there may be many.

All belts are subject to blocks, of which there are two forms, the regular belt block and the crater block. A belt block is where the belt caves in, distant from the volcano. The sides and roof fall together after a volcanic outburst, caused by the strain which kept them in place being withdrawn by the emptying out of the overcompressed gases through the volcano. When the gases in the belt are very much over-compressed, the pressure against the sides and the roof is immeasurable. Without, the rock is very compact, the pressure fractures and loosens the fractured part. As before stated, these fractured parts do not fall at the time they are fractured, not until the gases are drawn out of the belt, and the pressure taken from them. With the pressure withdrawn, they fall together in the belt and choke it. Such chokings may extend a few yards only or they may extend for many miles. The longest choking I have recorded was over 30 miles on the Ladrone Japanese Belt, in 1923.

When the gases again become over-compressed and are working their way to the volcano to escape, they are stopped by the block. Then they have to do one of two things: either force the block ahead and melt the rocks as they are being driven along, or they must forge their way around the block or open up a new crater on the belt. These blocks and forgings cause our major earthquakes.

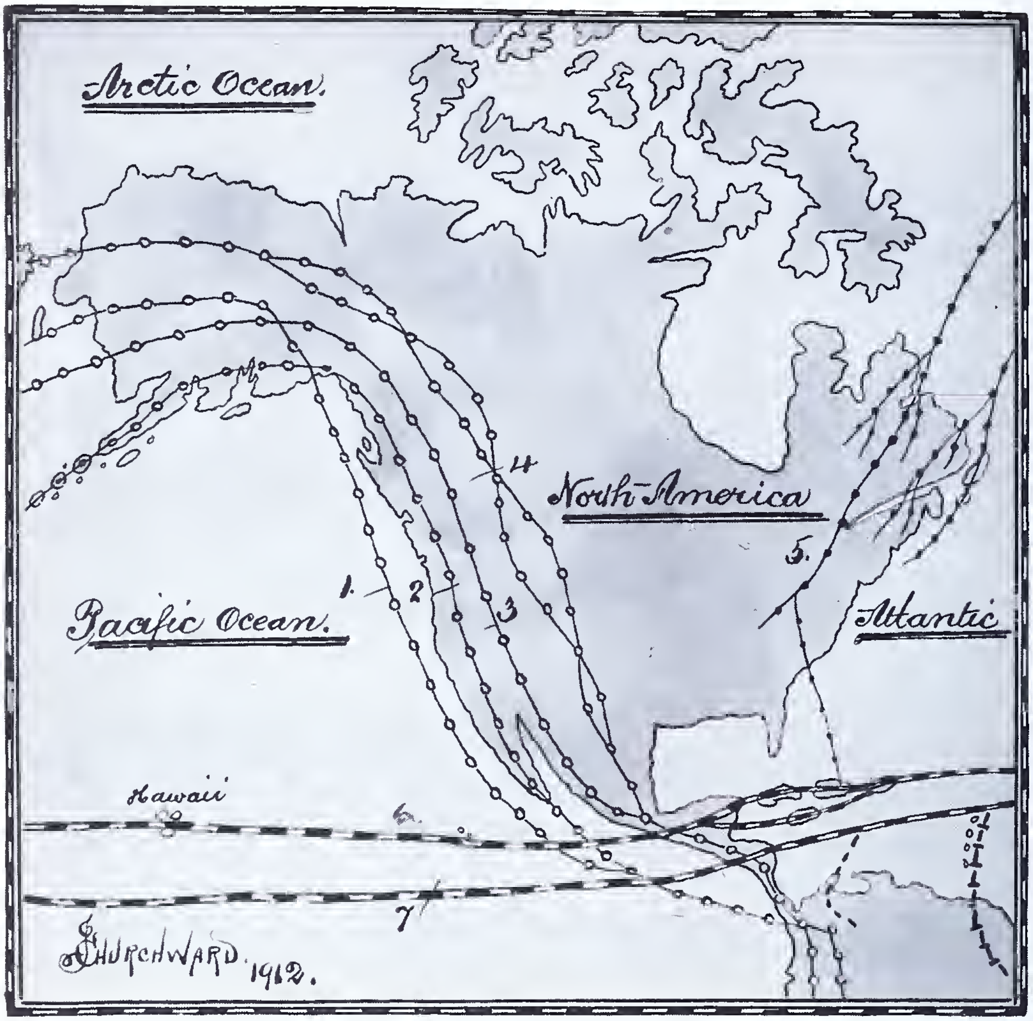
When the block is a crater block, which was formed by the rocks of the crater falling together after the previous eruption, the crater is opened by the gases forcing back the rocks to their original positions and ejecting the smaller ones. The lowest stratum of a crater block is always ejected in a semi-molten state. There are exceptions to the craters sealed up after an eruption. I know of two volcanoes where, with the aid of a gas mask, one can look over the edge of the crater and see the lava in the belt boiling and rolling. The opening of a crater is always accompanied by earthquake shocks, the intensity of which depends on how tightly the crater is blocked. Occasionally the gases fail to clear the crater, and then one of two things happens: either a new crater is formed on the side of the mountain, or the top of the mountain is blown off down to the bottom of the crater block; and sometimes a new crater is opened up on a nearby mountain.

When the top of a mountain is blown off, the fragments of rock are sent hurtling through space, sometimes for distances of 10 and 15 miles, scattering destruction in all directions. Recent prominent phenomena of gases blowing off the tops of mountains are: Katmai in Alaska, Mt. Pélé in the West Indies, and Krakatoa in the Malay Archipelago.

Occasionally a volcano, coming into action, will open up fissures in the sides of the mountains, and from these fissures make ejections; this is an extremely bad sign, and on such occasions, distance lends enchantment to the view, for the crater is no doubt badly choked and probably beyond the possibility of opening; then one of the fissures will open up as a regular crater, or the top of the mountain will be blown off.

There are two great gas belt systems in North America. One along the greater part of the eastern United States, the other, from end to end of western North and Central America, continues on from end to end of western South America.

Our western belts are a part of or a division of the *Great Pacific Circuit Belt.* I will call it the North American Division of the Pacific Circuit Belt. Our eastern belt is the commencement of the *Appalachian, Iceland, Scandinavian Belt.* I will call this the Appalachian Belt or the

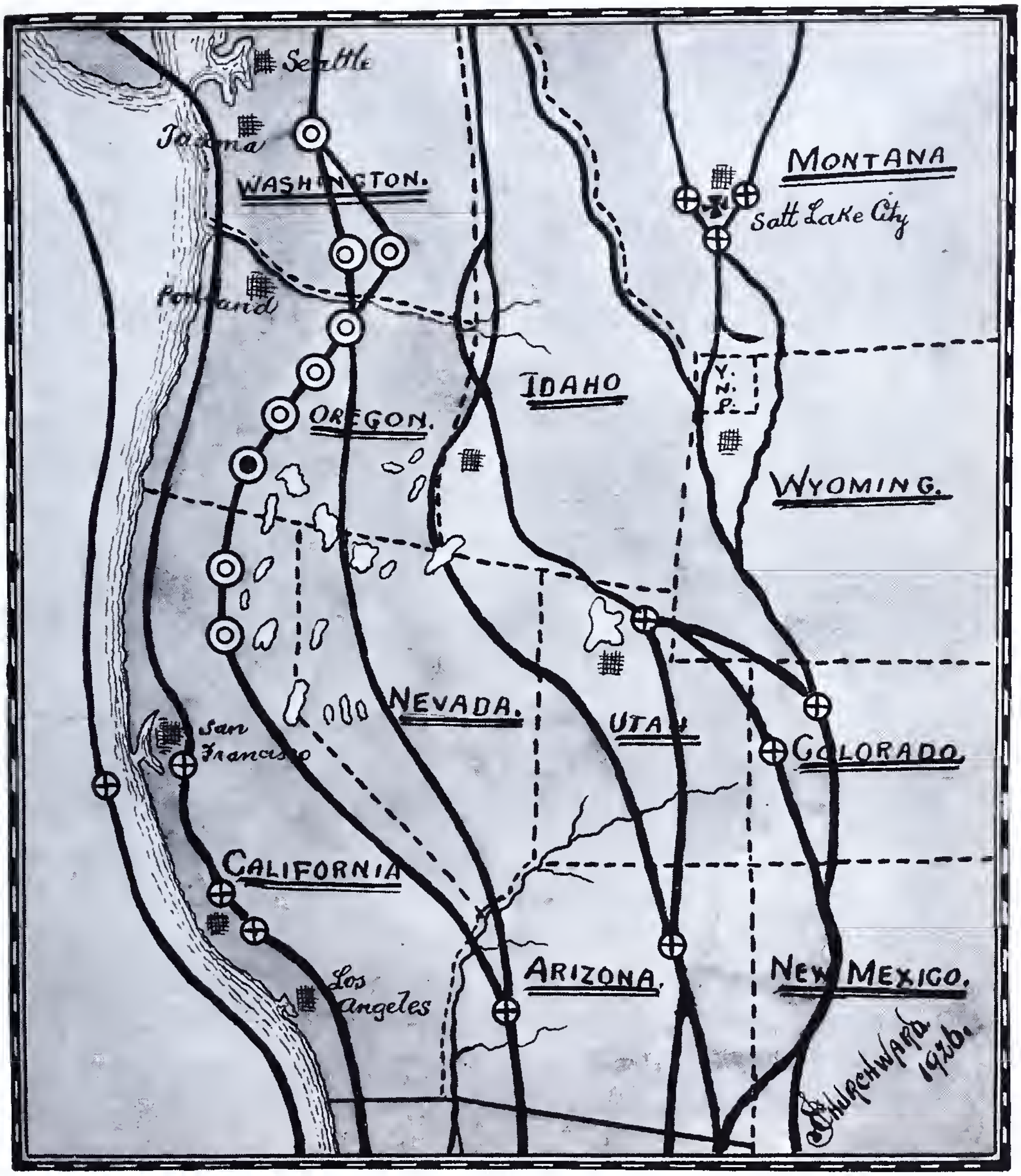


KEY MAP. NORTH AMERICAN GAS BELTS

Pacific Circuit Belt
1. Submarine Division
2. Coast Range Division
3. Cascade Division
4. Rocky Mountain Division

The Appalachian Belt
5. In Eastern North America

Great Central Belt
6. Northern Division
7. Southern Division



GAS BELTS OF WESTERN NORTH AMERICA

1. Submarine Belt
2. Coast Range Belt
3. Cascade Belt
4. Rocky Mountain Belt

American Division of the Appalachian-Iceland-Scandinavian Belt.

There were two western North American Gas Belts that preceded the present ones. One ran under the Rocky Mountains and the other beneath the Cascades and Sierra Nevadas. After these had been in existence for a time (not long, however), belts were forged directly underneath them. In forging these new belts the rocks had to be raised above them. This disturbance of rocks reached into the belts above and for stretches choked them and put them out of commission. Parts of the old belts remained here and there, and the gases flowed into them from the new belts. A section of the old Rocky Mountain Belt under the Yellowstone Park was not entirely obliterated and remains to this day, and a section of the old Cascade Belt still remains in Oregon.

The old Rocky Mountain Belt ran pretty well along present lines down to about the Grand Canyon of Arizona, then it turned west to the neighborhood of the mouth of the Colorado River. From there it proceeded down under what is now the Gulf of California, under the Pacific near Central America, and then entered under Colombia in South America.

Before this belt was formed, I *think,* the Gulf of California did not exist. From the mouth of the Colorado River all the way down to Colombia there was a narrow isolated Chamber; the forging of this belt opened up communications with this chamber, over-compressed it and blew it out, resulting in the submersion of the land over it. This land would have covered the Gulf of California and a strip along the coast of Central America to Colombia. The Pacific Ocean's bed is not yet clear of all of the old isolated chambers. There are some dangerous ones left yet, as is verified by the following extract: "Recent earthquakes have caused such a change off the Coast of Central America that at a point where the charts show a depth of 1,000 feet, a depth of 5,000 feet is now found." This phenomenon was undoubtedly due to the blowing out of a gas chamber which measured 4,000 feet from its floor to its roof. While the height of the chamber is thus measurable, its area cannot be given without a regular survey and comparison with the charts.

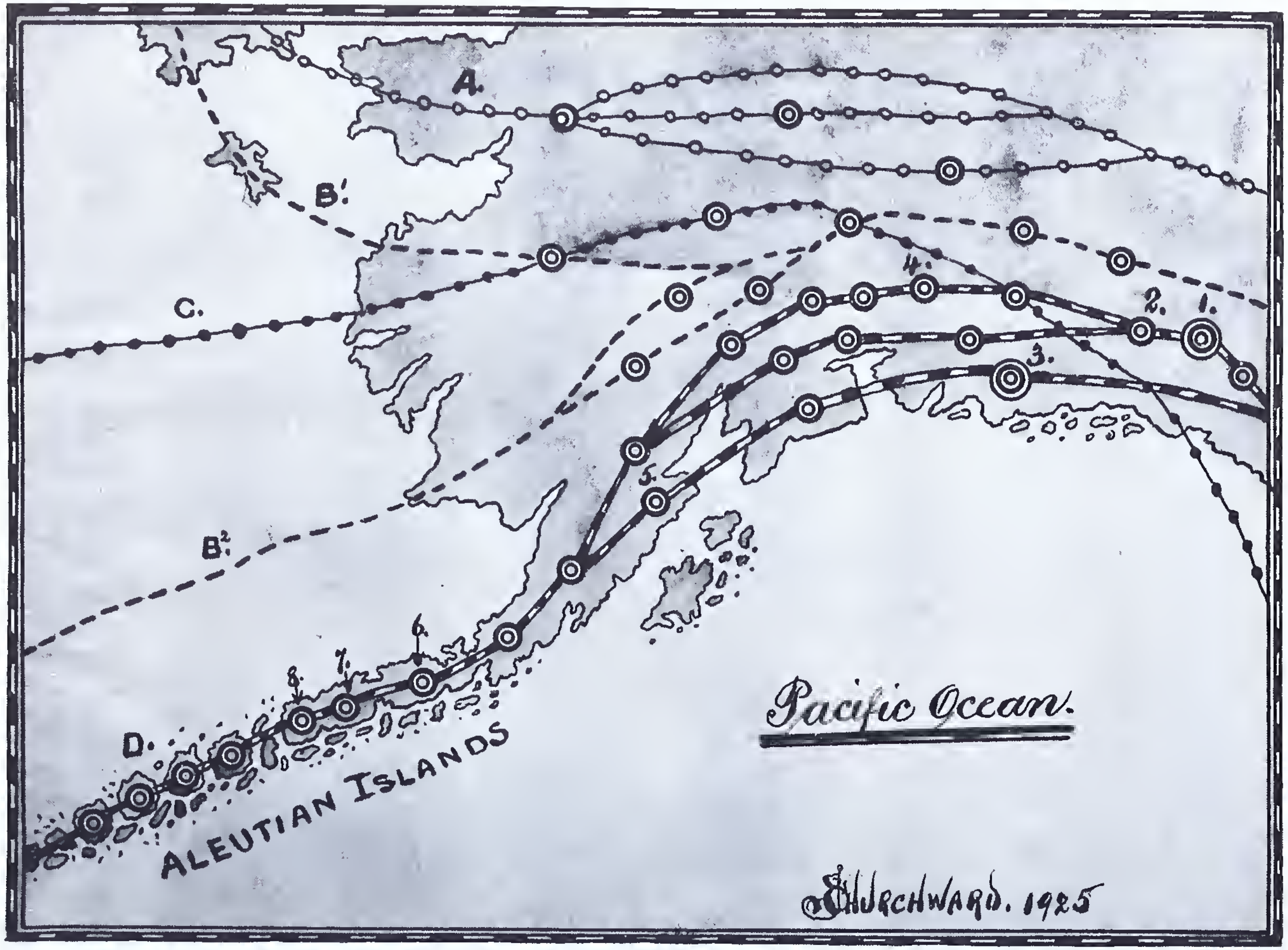
The New Nevada-Cascade Belt completely blocked and choked up a long section of the old Rocky Mountain Belt where they crossed each other, and turned the forgings of the New Rocky Mountain Belt towards the southeast.

This is shown by the belts now running diagonally across New Mexico and Arizona, from about the Grand Canyon in Arizona. As the gases of the New Belt lifted the rocks in Arizona and New Mexico, various lines of least resistance opened up, so that instead of one single tunnel, there are many irregular parallels in these states before they pass down into Mexico. In Arizona and New Mexico the gases met with an extraordinary resistance, and in forging so many parallels they literally turned the place upside down, filled with Gorges, Mountains and Canyons, as we now find them after thousands of years of weathering and erosion of the rocks.

ALASKA

It must be thoroughly understood that all of my gas belt maps are purely conventional and intended only to give, approximately, their location.

A. Becomes the Rocky Mountain Belt.
B. Either the Coast range or the Submarine Belt.
C. Either the Submarine or Coast Range Belt.
D. Becomes the Cascade Belt.


A.
B.¹
C.
B.²
D.
1.
2.
3.
4.
5.
6.
7.
8.
ALEUTIAN ISLANDS
Pacific Ocean.
J Churchward. 1925

ALASKA

1. Mount Logan.
2. Wrangel.
3. St. Elias.
4. McKinley.
5. Katmai—recently active.
6. Pavlof—recently active.
7. Shieshaloin—recently active.
8. Pogarromi—recently active.

Alaska is one of the great volcanic danger spots on the earth's surface, on account of so many belt crossings, junctions and splits. Some of the Alaskan belts are quite close to the surface, while others lie deep down.

The Pacific Circuit Belt comes into Alaska from Asia and Japan in the form of four parallels. As a matter of fact, however, they are four separate and distinct belts coming from four directions, but centering in Alaska. In Alaska they cross, split and come together again many times over.

I will first take the belt with the most volcanoes on it, marked *D* on the map. This belt leaves the mainland of Asia opposite the northern Japanese Island, passes under the island, then out under the ocean to the Aleutian Islands, passing under these islands it enters under the southwest corner of Alaska. It then passes along the southern part of Alaska. During this stretch it splits twice, and finally comes together again on the borders of Canada. It passes under a corner of Canada, and passes down into the State of Washington, and then becomes the Cascade Mountain Belt.

The next I shall note will be Belt *A*. This runs under the most northerly range of mountains in Alaska, passes under the northwest corner of Canada, under the Canadian Rockies, then down into the United States, where it becomes the Rocky Mountain Belt. The origin of this belt is somewhere in the Central part of Asia. I have traced it as far as Lake Baikal and the Gobi Desert.

The two belts, *B* and *C,* come into Alaska from two different directions from Asia. In Alaska they meet and cross. Which direction each takes, I cannot say, except that one becomes the coast Range Belt and the other the Subterranean Belt, which runs down alongside the coast of North America, never more than 8 or 10 miles off-shore, and in some places it is within a mile or two off-shore.

Geology tells us that there are over 50 volcanoes in Alaska, either in an active state or extinct. I might add that when all are totalled, the sum will reach a great many more than 50. All of the volcanoes mentioned I have numbered on the map. Another pair on the loop above Katruai are Redoute and Himain.

When a volcano has not been in eruption for a long time, our geologists say that it is extinct. A volcano on a *live* belt is *never* extinct; it may be quiescent, but *not extinct;* they require only the right condition to open up again. The reason why they became apparently extinct is, after an eruption they became so badly choked that the gases found another line where the resistance was less, so a new crater was opened up. Now if this new crater becomes choked worse than the old one, the old one would be the line of least resistance, therefore would be opened up again, and the new one would become apparently extinct.

This is a phenomenon that has happened many many times in Central and South America, and in Japan I recall one case where the volcano had been inactive for 250 years and when it opened up again the new one stopped.

The only really *extinct* volcanoes, are those which were instrumental in emptying out an Archaean Gas Chamber, and were in no way connected with any belt. These ancient craters are found all over the world in all countries.

From my maps it will be seen that four belts continue on from Alaska, three run under our western states and one under the ocean close to our western shore line. I have given them the following names:

The Rocky Mountain Belt,
The Cascade Belt,
The Coast Range Belt, and
The Submarine Belt.

The Rocky Mountain Belt was instrumental in raising the Rocky Mountains and now runs under them in the form of numerous parallels, loops and spurs, and its ramifications are many. It is today a very active belt, and during the time of its original formation had many outbursts along its various lines, as shown by the many lava chimneys and what our scientists today call extinct volcanoes. I have said "its original formation" because the present belt was not the original one. Originally a belt ran nearly along the same lines as the present one, but very much nearer to the surface. Volcanoes were active along its whole length. Somewhere in Arizona the old belt took a westerly turn and went south under the Gulf of California. At a later date a new belt was formed directly underneath the old one. This belt cut off the gases which were flowing into the old one, and carried the land many thousands of feet higher above sea level. No doubt the disturbance of the rocks eliminated long stretches of the old belt, so that as a belt it does not exist now, although there are many weak lines between the old belt and the new. During the past 25 years there have been several blocks in the Rocky Mountain Belt, resulting in serious earthquake shocks, notably:

1910 in Arizona,
1911 in Colorado,
1913 in Utah, and
1925 in Montana.

Considering the size of this belt, and its many ramifications, this is pretty good behavior on its part.

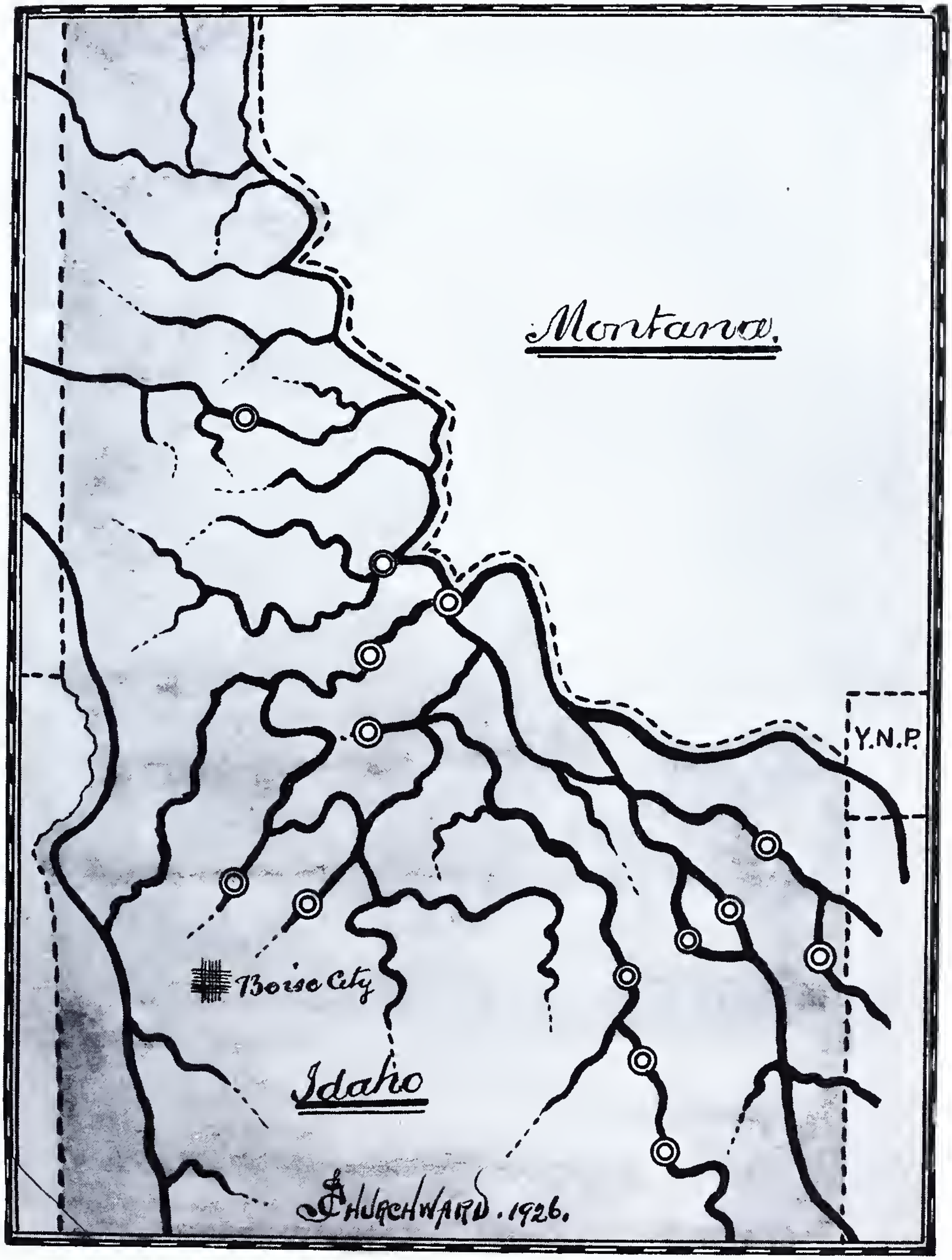
There is a peculiar phenomenon frequently happening on one of the spurs of this belt. I allude to the constant shifting of Meeker Mountain in Colorado. This has every earmark of containing a gas pocket or very small chamber underneath which is gradually being worked out, probably one of the isolated variety.

After the Rocky Mountain Belt leaves the United States, it passes down into Mexico on the eastern side until it reaches the great volcano, Orizaba. Orizaba is the volcano which at present is emptying out the gases from the Rocky Mountain Belt as they accumulate, but if a serious or a long block occurred in Mexico, between Orizaba and the boundary line between Mexico and the United States, it is quite possible that a volcano might be opened up in the United States on one of the parallels of this belt; and I think, further, that if such a thing did occur, it would be in the Yellowstone National Park, for here I think the belt comes nearer to the surface than anywhere else along the whole route.

I will now trace this belt through the various States under which it runs, commencing with the States of Idaho and Montana.

IDAHO

On leaving Canada, the Rocky Mountain Belt enters the United States in Idaho and Montana. The Main Belt proceeds south between Idaho and Montana. Here it is one



IDAHO

mass of spurs, junctions, loops and splits, so that it is impossible even to map them without the aid of topographical survey maps of these states, and even then errors might creep in without a view of the land and rocks. The best I can do under the circumstance is to give a rough comparative description; it cannot be even approximate. Another parallel passes south near the boundary line of the States of Washington and Idaho, and two parallels in Montana.

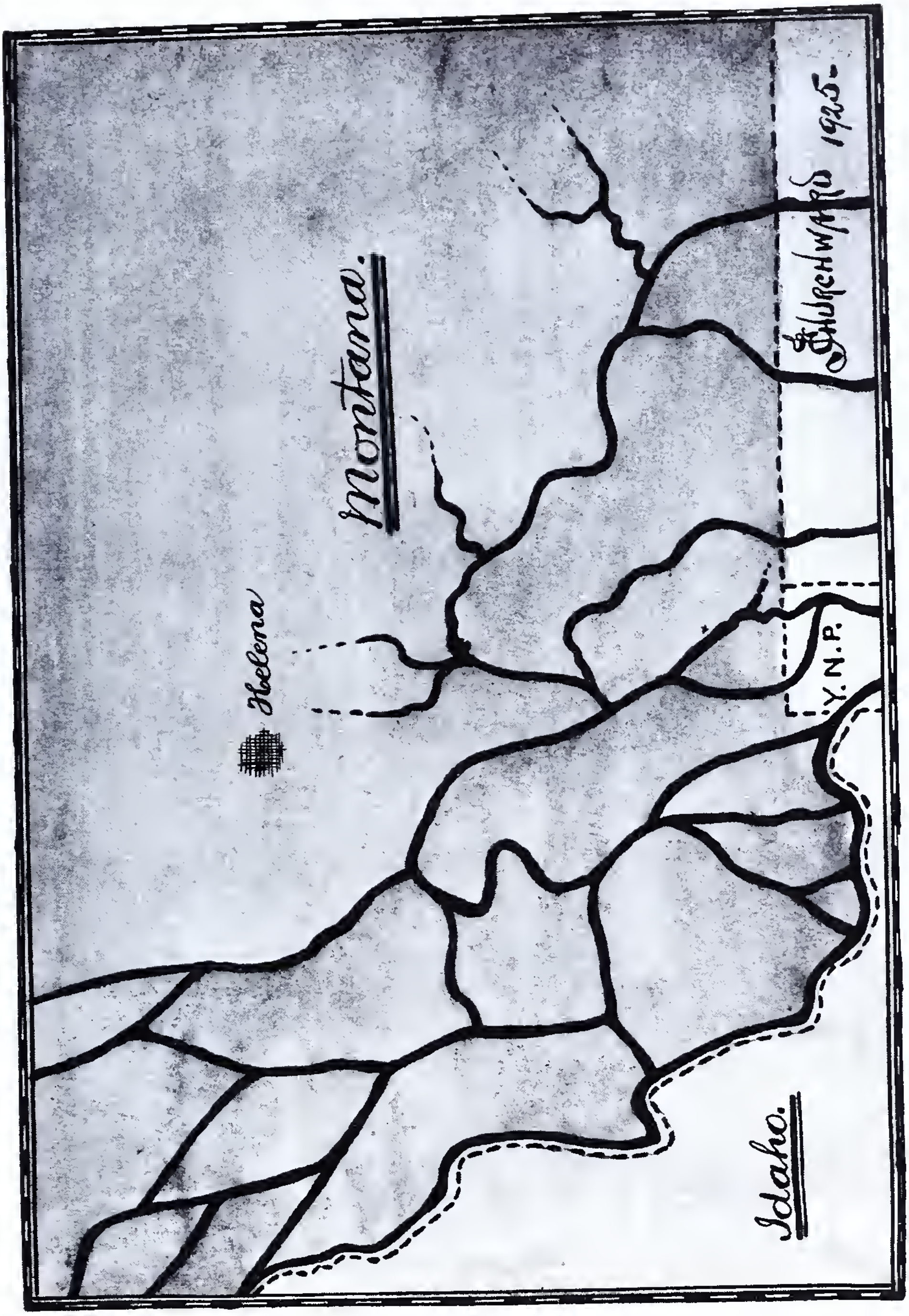
The western parallel passes between Washington and Idaho, then on between Idaho and Oregon, and into Utah. Just north of Boise City this parallel splits, and one of the splits runs southeasterly and enters Utah on the north, just above Salt Lake. The two branches of this split do not join again until they arrive in Arizona, thus forming a loop hundreds of miles long. I would not attempt to enumerate all the little feeding spurs which run into this loop, as they are far too numerous.

The main belt splits and forms several loops, commencing to the northeast of Boise City at a sharp southwesterly bend. From this point there is also a connection with the western parallel to the northwest of Boise City.

Almost directly west of the Yellowstone National Park, the Main Belt splits. One arm enters the Yellowstone; a little further south it splits again and forms a loop. These various arms or parallels enter Wyoming.

MONTANA

The Main Parallel of the Rocky Mountain Belt has been given as running between Idaho and Montana. Some distance east of the main parallel, the two ends of a split enter from Canada; a little south they join again. To the southwest of Butte there is another split which runs in a southwesterly direction. Again, almost due south of Butte,



MONTANA

the parallel splits again, taking a slightly northeasterly direction and then curves around settling down to a southerly direction. Below this last split and north of the Yellowstone, this Eastern parallel splits again, and comes together in the Yellowstone Park, completing the loop. From the Canadian border down to the Yellowstone Park, between the Main and Eastern parallels, the whole area is a mass of splits, junctions and loops. All five parallels, two from the Yellowstone and three from Montana, pass down into Wyoming.

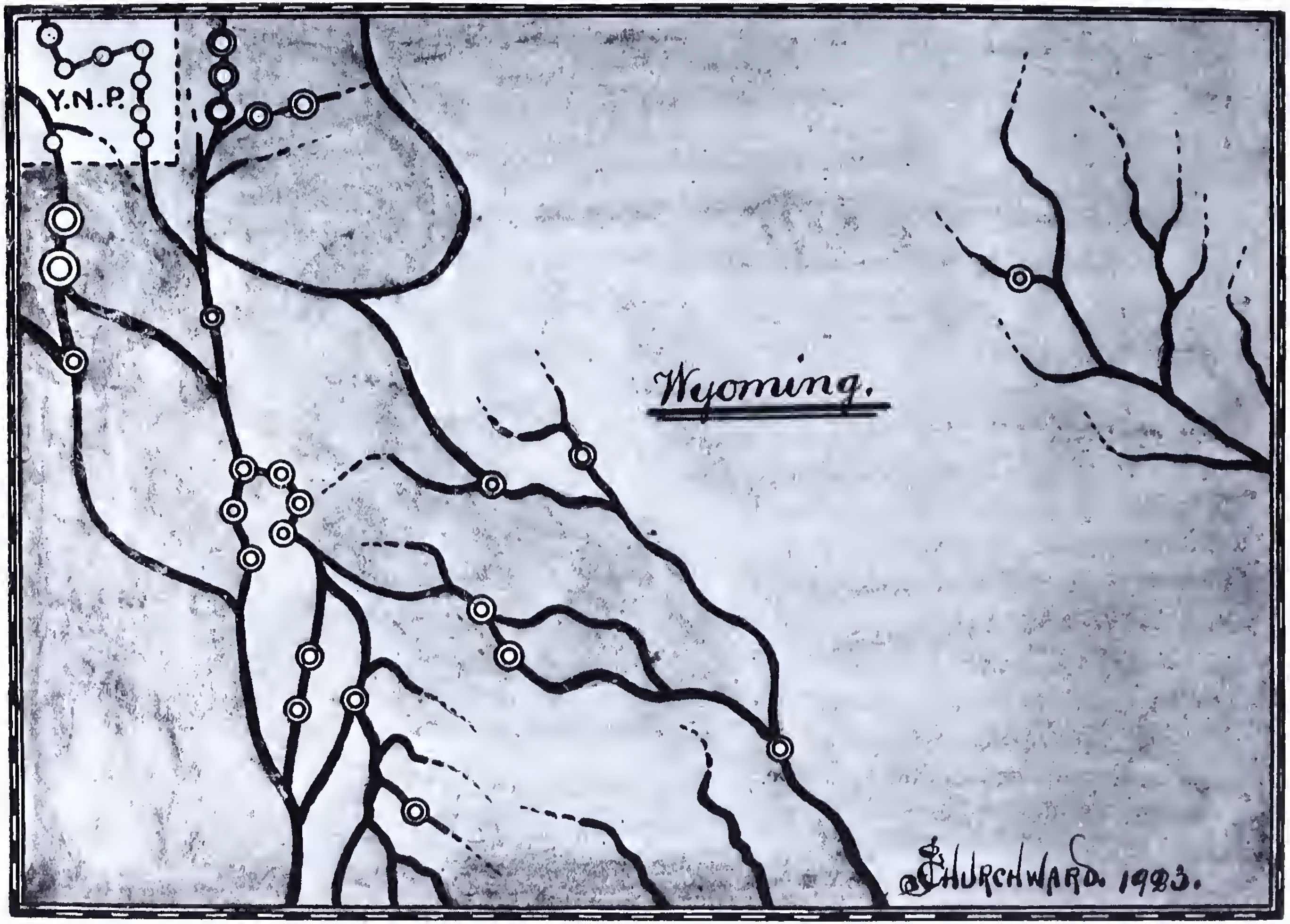
On June 27th, 1925, a major earthquake occurred in Montana, centering about Three Forks, White Sulphur Springs and Anaconda. The greatest damage done was in the Gallatin Valley; fortunately very few lives were lost. Serious mountain land slides occurred all along the route of the quake, which was caused by a bad block. As no ground was reported to have been opened with big fissures, it is presumable that the blocking rocks were forced ahead and melted, and that the gases did not forge around the block.

WYOMING

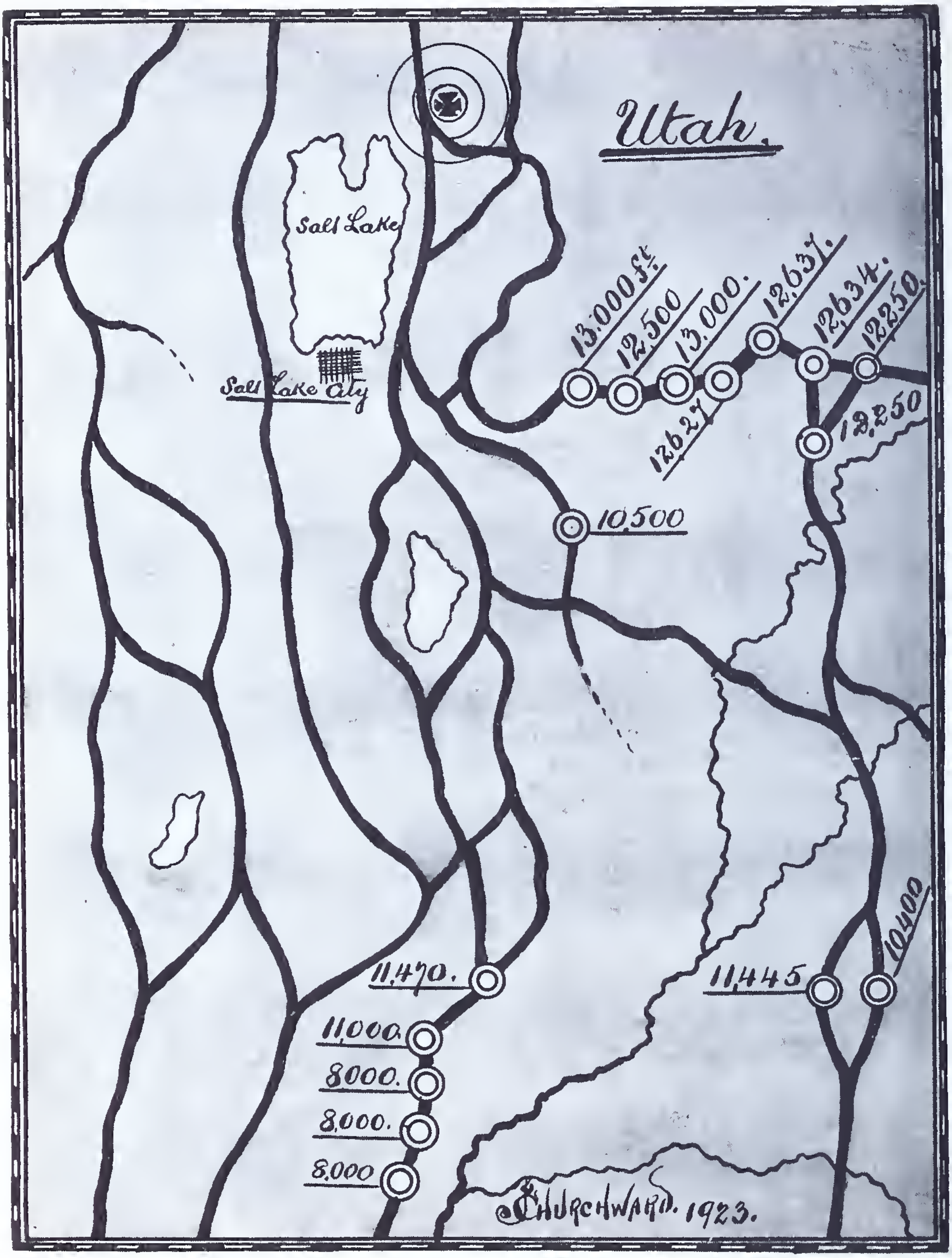
After leaving the Yellowstone Park, the branch of the main belt runs south. On it is the celebrated Teton Range, whose peaks pierce the clouds at high altitude. Mt. Moran has an altitude of 12,000 feet, and Grand Teton 13,747 feet. A little south of the Teton Range the other branch of the main belt joins the Teton Branch. The main belt then continues on into Colorado in a very broken manner. There are many high peaks along the belt.

The Eastern parallel on the east side of the Yellowstone take a southeasterly bend and enters Colorado.

To the east of the Main belt a third parallel makes its start for Colorado also.



WYOMING


Utah.
Salt Lake
Salt Lake City
13,000 ft.
12,500
13,000.
12,637.
12,634.
12,250.
12,627
12,250
10,500
11,470.
11,000.
8000.
8,000.
8,000
11,445
10,400
CHURCHWARD. 1923.

UTAH

UTAH

Utah is justly celebrated for her towering volcanic peaks. The Utah Belts are a continuation of the Western Parallel. There are two remarkable groups of high mountains: The Uinta Mountains to the East of Salt Lake City and the Henry Mountains due South of Salt Lake City. The towering Uinta Mountains are an unusual phenomenon on the Rocky Mountain Belt, because of the fact that they run East to West or vice versa, whereas the direction of the belt is from North to South.

Comparatively speaking, there are but few weak spots in the Utah Belts, there being no crossings. The lines run pretty straight, with a few loops.

In 1913 Utah was visited by a severe earthquake. It occurred at a split. I have marked the spot with a maltese cross, at the northeast corner of Salt Lake.

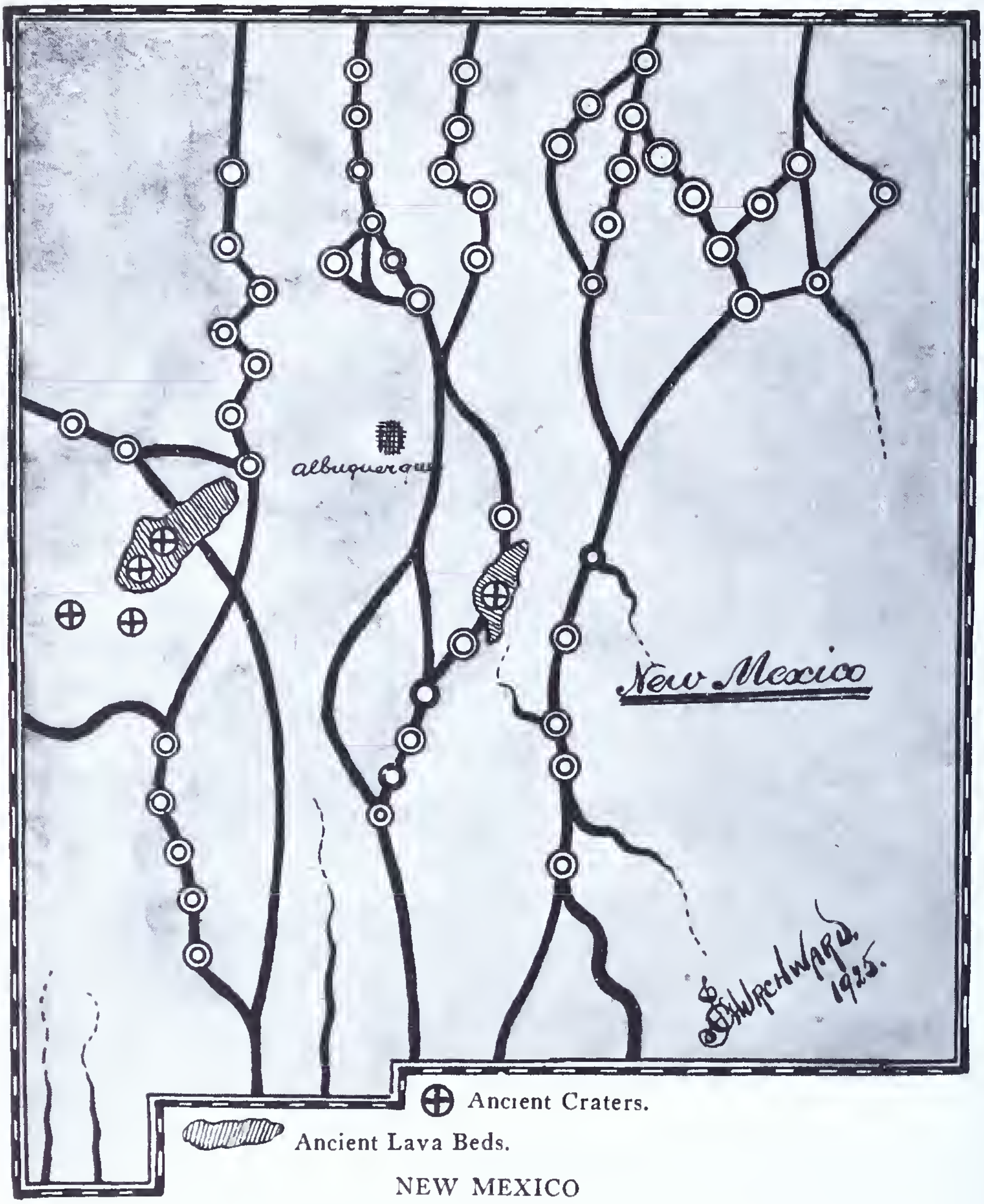
COLORADO

The volcanic condition of Colorado is indescribable without one's having spent a year or two in the state, devoting one's whole time to the study of the topography and rock formations of this wonderful state. In Colorado the Rocky Mountain Belt attempted to do its darndest, and came pretty near succeeding. Nowhere along the whole length of the Rocky Mountain Belt are there so many sky-piercing peaks, over 40 of them having an altitude exceeding 14,000 feet.

The greater part of Colorado is pierced with spurs, parallels and loops of this belt. There are also several cross-connections from one parallel to another.

Under Colorado the belt is generally very deep down. Among the high peaks of Colorado are:

To the north of Denver—Grey's Peak—14,341 feet.


albuquerque
New Mexico
ArchWard 1925
Ancient Craters.
Ancient Lava Beds.

NEW MEXICO

To the south of Denver—Pike's Peak—14,109 feet.
R. M. Nat. Park—Long's Peak—14,228 feet.
R. M. Nat. Park—Home Stretch—14,225 feet.
Mesa Park—Mt. Sneffles—14,156 feet.

All over the mountainous parts of the state great peaks such as these appear.

New Mexico

I have previously stated that the Rocky Mountain Belt, when forming, put forth its supreme efforts in Colorado. This statement bears qualifying. New Mexico in her northern areas shows that the gases were not suffering from exhaustion when they entered New Mexico from Colorado.

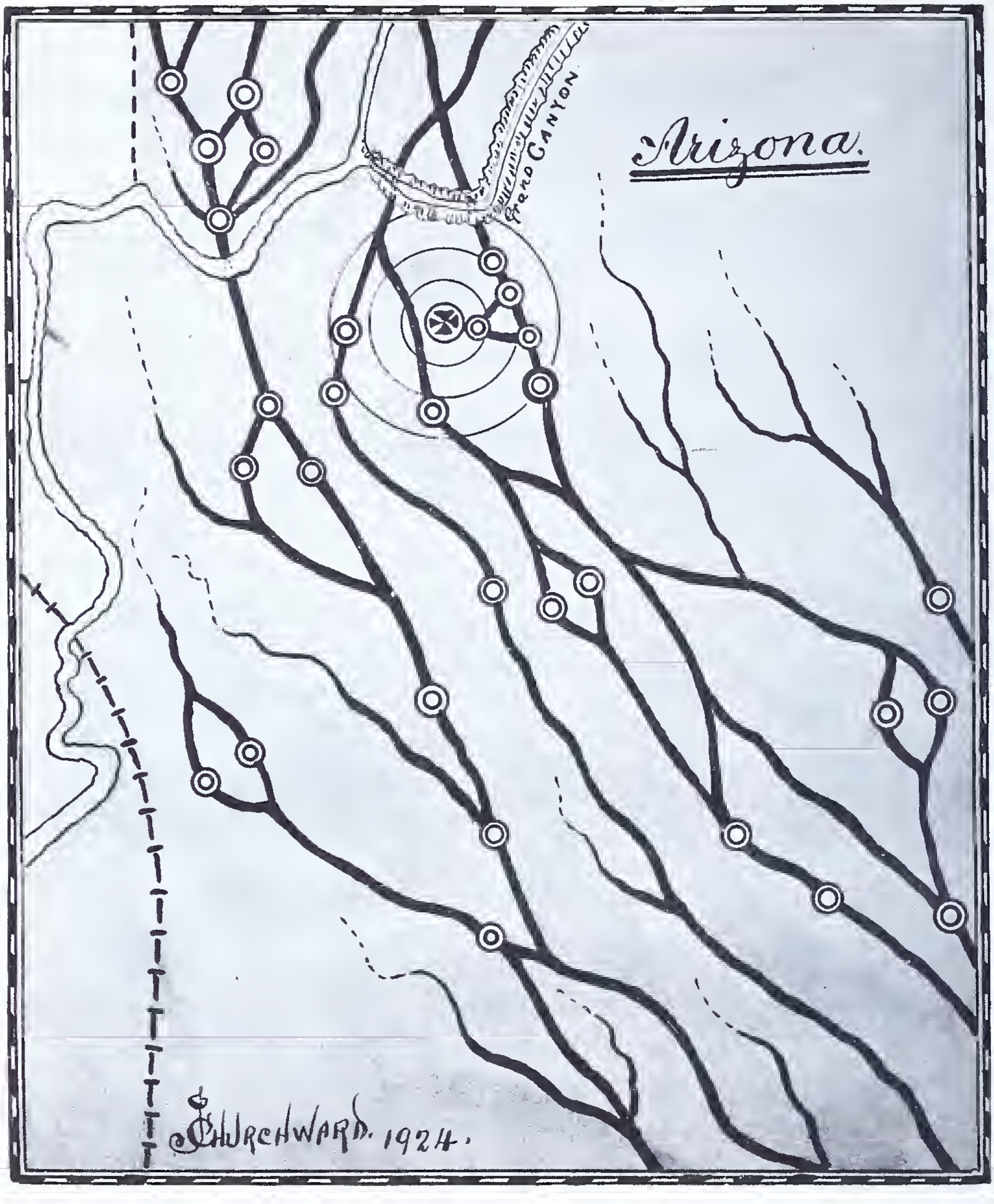
The belt leaves Colorado in the form of five principal parallels, with a few ramifications thrown in.

On each of these parallels, north of the City of Albuquerque, are many towering peaks but little less in altitude than the giants of Colorado, those of New Mexico running from 11,000 to about 13,000 feet in altitude.

In this state there are between 20 and 30 peaks which have an elevation of over 10,000 feet, with numerous others of lesser altitudes, all of which are of volcanic origin, as is shown by many, having craters.

An interesting phenomenon appears at the south and southwest of Albuquerque: immense fields of lava, with a number of small ancient craters in and around them. Unquestionably these old craters were formed when the gases of an Archaean Gas Chamber were being emptied out through them.

The small size of these craters and their close proximity to one another intimate that the chamber lay pretty close to the surface, which in turn intimates that it was eliminated an immensely long time ago.



ARIZONA

When were these ancient craters belching forth their fires, lava and smoke? When? It may have been back in Mesozoic Times, and again it may have been immensely further back, back in Paleozoic Times, possibly, and probably millions of years before the gas belts began to be formed.

Whether submersion followed the collapse of the chamber I cannot say, but probably not, because the lava is on the surface; again, if submerged, it might have been in such shallow water that no rock could be formed upon the lava beds, so that when it emerged again, it would have had only loose sand upon them, which might have been disposed of in various ways, leaving the beds as we now find them. These lava beds and ancient craters are a pretty little geological study. If I remember correctly, Permian Reptilian fossils are found in Texas not far from this area. Are these lava beds and the Permian Reptilian fossils of the same date?

ARIZONA

Arizona is one of the spots where the gases put in their dirty work, for of all the jumbled-together, split-up, broken-up masses of land that can be found anywhere in North America—and I think not only in North America but in any part of the world — Arizona has no peer. In Arizona the gases acted like a bad-tempered, naughty child, who pulls everything off the table and scatters them on the floor, a heaped up mass of broken utensils. Mountains, gorges, canyons, walls and towers of both vertical and horizontal rocks, everything "higgledy-piggledy," out of all order and alignment! But perhaps I am wrong; the gases started to make a fairyland and came pretty near succeeding. There are the rich plains and wooded slopes of mountains, with delightful climates, governed by elevation to suit the taste of anyone.

It is true Arizona has her deserts, but they were put there only to test the ingenuity of man and to educate him. There is an abundance of water in the state, and when controlled, it can be used to turn desert lands into fruitful areas, yielding all that man wants for comfort.

In 1910 Arizona was visited by a severe earthquake. I have marked with a maltese cross where the center of disturbance was reported to have been. South of the Grand Canyon, and northwesterly from the premier peak of Arizona, the San Francisco Mountain, whose pointed peak pierces the skies at an altitude of 12,565 feet.

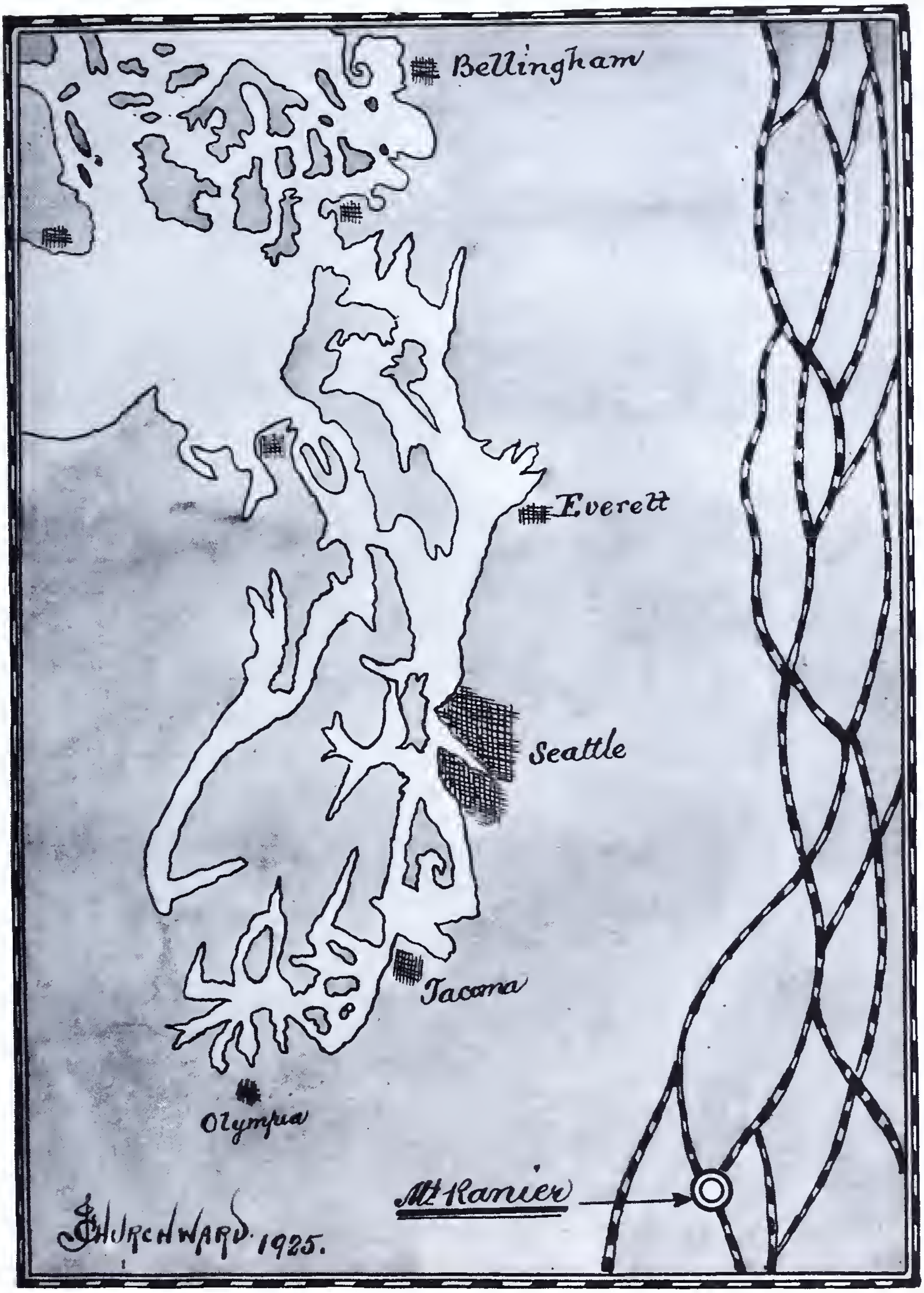
There is a great similarity between the volcanic conditions of Arizona and New Mexico; in this respect they are twin sisters.

It must be understood that the foregoing is not supposed to be a detailed description of the Rocky Mountain Belt; it is simply a rough outline of its principal characteristics.

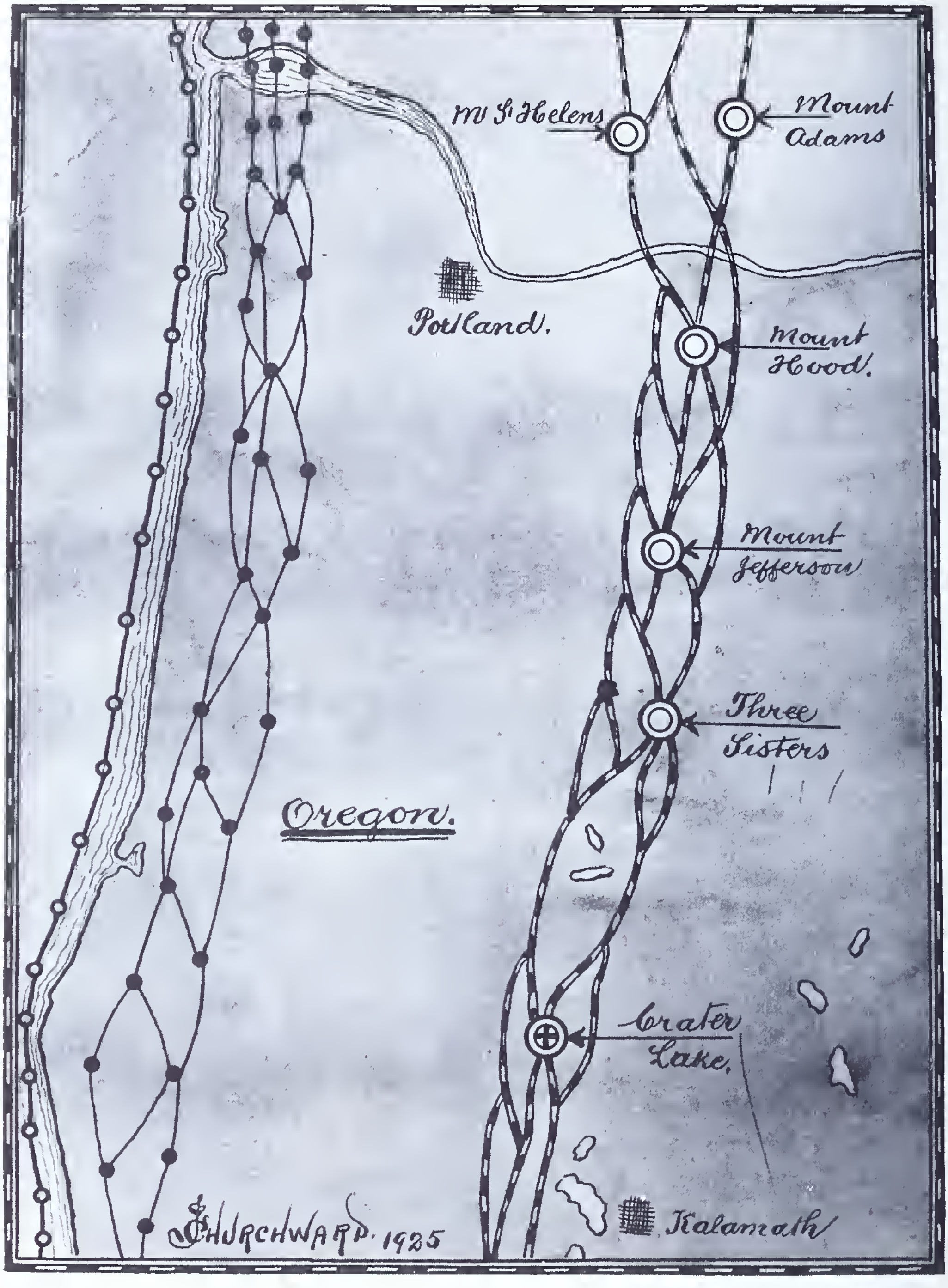
THE CASCADE BELT

As three belts here, in our far western states, run parallel to each other and but a short distance apart, I shall place the three maps following each other and make each of two belts continuous through the States of Washington, Oregon, Nevada and California.

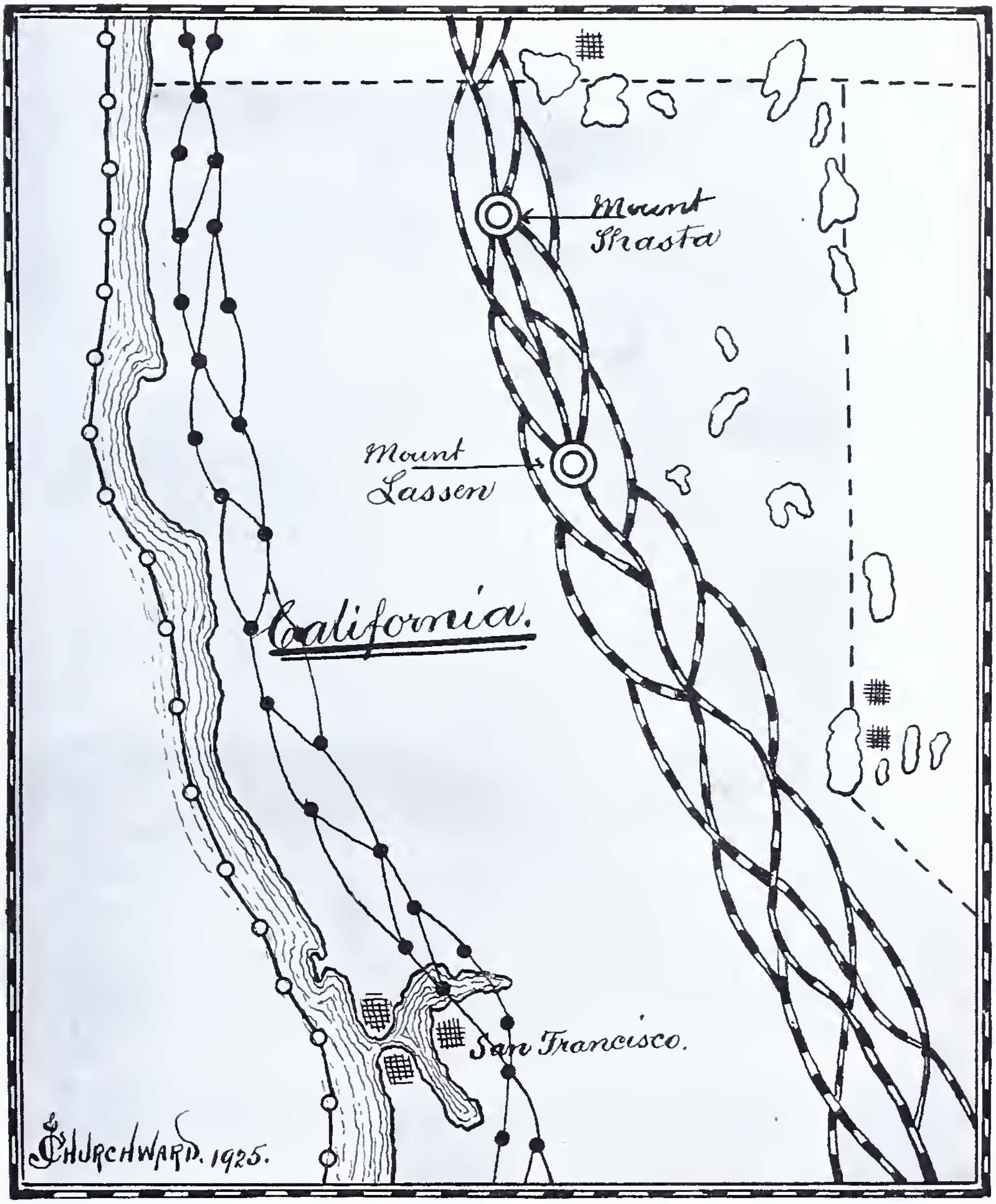
As I have been unable to get the ramifications of either the Cascade or Coast Range Mountains, I have simply drawn the main line of these two belts in a conventional grapevine form, intimating that there are a great number of spurs, junctions, splits and loops connected with each belt. Nevada is full of ramifications of the Cascade Belt,



WASHINGTON (NORTH)



WASHINGTON (SOUTH) and OREGON


Mount Shasta
Mount Lassen
California.
San Francisco.
J. Churchward. 1925.

CALIFORNIA

and to the east, in Washington, there are many loops and spurs which I have not given.

The Cascade, also the Sierra Nevada range of mountains, were raised by the Cascade Belt.

At one time the Cascade Belt must have been an exceedingly active one; and it is well within the range of possibilities that it may become so again, as shown by the many great volcanic mountains upon it, all of which at one time belched forth fire and smoke. Some of them today smoulder and eject steam, which means that a change of conditions might throw them back into their old activity. This condition depends on the Mexican Western Belt.

In the State of Washington there are:

Mt. Rainier, Mt. St. Helens and *Mt. Adams.*

In the State of Oregon:

Mt. Shasta and *Mt. Lassen.*

A mountain on this belt, called Mazana, had its top blown off during an outburst. It is now several thousand feet lower than originally.

Crater Lake, so called, is directly on this line. There is no question but what this crater was formed when it helped to empty out the gases from an Archaean Chamber. This unquestionably is an ancient crater. This fact is confirmed along Sandy Creek, which comes out of Crater Lake. Along its banks are to be found hundreds of mounds, lava chimneys, that once spouted lava. It seems unquestionable that these were doing their little bit at the time the Crater, which now forms the lake, was doing its big bit. Again, all this indicates that the chamber was not deep down, so that the crater is a very ancient one.

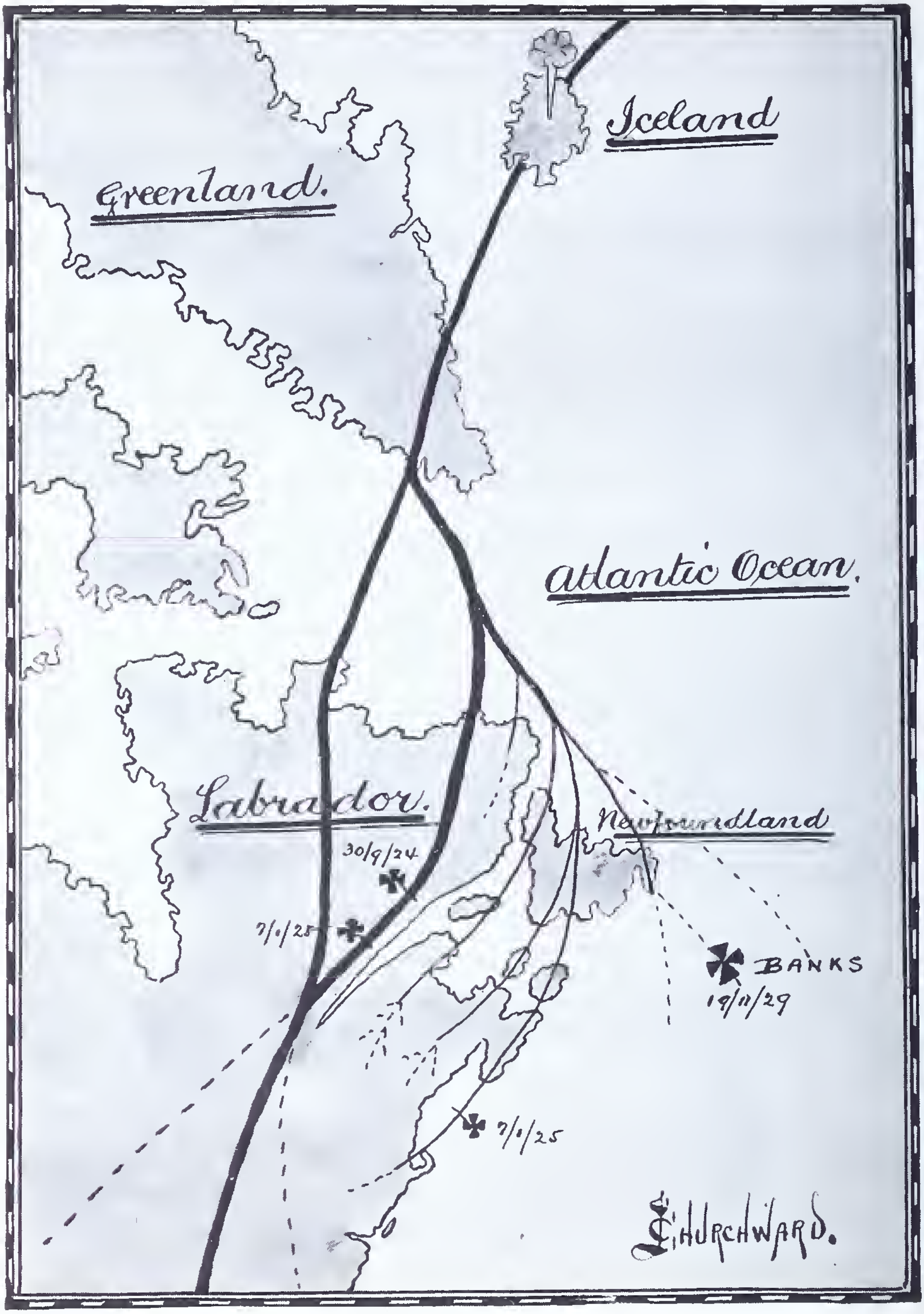
There have been no *great* disturbances on this belt in the United States for a long time. Mexico has relieved the United States of this trouble. During the last few years there have been several quakes in Mexico on this belt, some doing great damage to life and property. An extremely bad belt block in Mexico would send Mt. Shasta and Mt. Lassen into activity again.

After leaving the United States, this belt passes down into Mexico from Arizona; it traverses the western side of Mexico for a distance and then splits. It was at this split that the last earthquake occurred. One arm of the split, the eastern, goes on to the Volcano Popocatepetl, the western arm continuing down the western side of Mexico to the volcanoes, Coloma and Jorulla. Unlike the Spaniard generally, they are extremely active.

THE COAST RANGE BELT

The Coast Range Belt starts in Central Asia, crosses under the Bering Straits and into Alaska. In Alaska it either passes over or under another belt, but from this point it is impossible to say which of the two Asiatic Belts it belongs to. I will pick it up again in the United States. It passes along the coast from Washington into Oregon, then into and down through California, into lower California; from lower California it goes under the ocean to the northwest corner of South America and enters under Colombia, a little west of the Isthmus of Darien. In Colombia it reaches its volcano and there empties out its gases. As I cannot perfectly trace this belt all through Alaska, I cannot say whether there are any volcanoes on it in that territory. It is not a dead one, however, as it gives California some lively times occasionally.

About 100 years ago there was a block in it, causing an earthquake at San Bernardino, and in 1925 at Santa Barbara. Whether this belt was responsible for a part of the damage to San Francisco in 1906, I cannot say.



THE EASTERN OR APPALACHIAN BELT

On 30th of June 1925, three days after the Montana earthquake, a major shock occurred in southern California, on the Coast Range Belt, which virtually destroyed Santa Barbara, a California coast town. Scientists writing about these two quakes at the time, connected them with one another. As a matter of fact, they were in no way connected with each other, as they were on two separate and distinct gas belts. Their coming so close together was simply a coincidence.

The Santa Barbara quake ran true to form. An eyewitness wrote: *"The earth stretched and yawned, followed by a crunching sound, a roar and an explosion."* The belt block was just at the back of Santa Barbara. Subsequent little shocks were felt, each one centering further south than the previous one. On July 2nd, two days after the Santa Barbara quake, the volcano Galeras in Colombia, South America, began to get busy. This is the third record showing that, within a few days after a disturbance on the Coast Range Belt in California, this volcano in South America went into eruption.

The phenomena attending this earthquake should alone be sufficient to show scientists that their theory attributing earthquakes to the falling of rocks at a geological mythical fault is childish and untenable. It clearly proves to them, without they are too dull to comprehend, or too obstinate to admit, that they are wrong, that earthquakes are due to volcanic workings, and nothing else.

THE EASTERN OR APPALACHIAN BELT

The Eastern or Appalachian Belt commences its western end with the Appalachian Mountains in eastern North America, which it raised.

After running north through the eastern United States, it enters Canada. Either just before or just after it enters Canada, the main belt splits and passes on in two parallels through Labrador, the two parallels meeting again in Greenland, from Greenland it goes under the sea to Iceland, where it has its safety valve in the Volcano, Hecla. From Iceland it passes on under the sea to the northern part of Norway, and from this point I shall continue it in the gas belts of Europe.

From some point near its southern end, a branch goes east and passes out under the ocean near Charleston, then it turns southerly and ends by running into one of the West Indian belts.

Above Labrador, from the eastern arm of the split, a feeding branch runs south passing under Newfoundland, Nova Scotia and New Brunswick. The ends of this branch are like as many fingers on a hand, these fingers stretching all through the eastern States of Maine, New Hampshire, Vermont, Massachusetts and eastern Connecticut. One of the fingers of this branch runs from New Brunswick under the sea just off the coast of Maine and Massachusetts, and then turns in under the State of Rhode Island.

In addition to the New England feeders there are others, submarine branches, running down somewhere near the banks of Newfoundland. As they are very quiet, I have been unable to get a line on their exact location, but some day a major shock may disclose it.[1]

Minor shocks are frequent on this branch. On 30th of September, 1924, there was a block between Rhode Island and New Brunswick, resulting in a little shock. A little later a minor earthquake was experienced on the eastern arm of the split, south of Montreal, and on the 7th of January, 1925, a severe quake took place just north of Montreal.

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[1] This shock occurred about 10 years after my writing the foregoing.

The vibrations of this quake were felt in New York and other distant points.

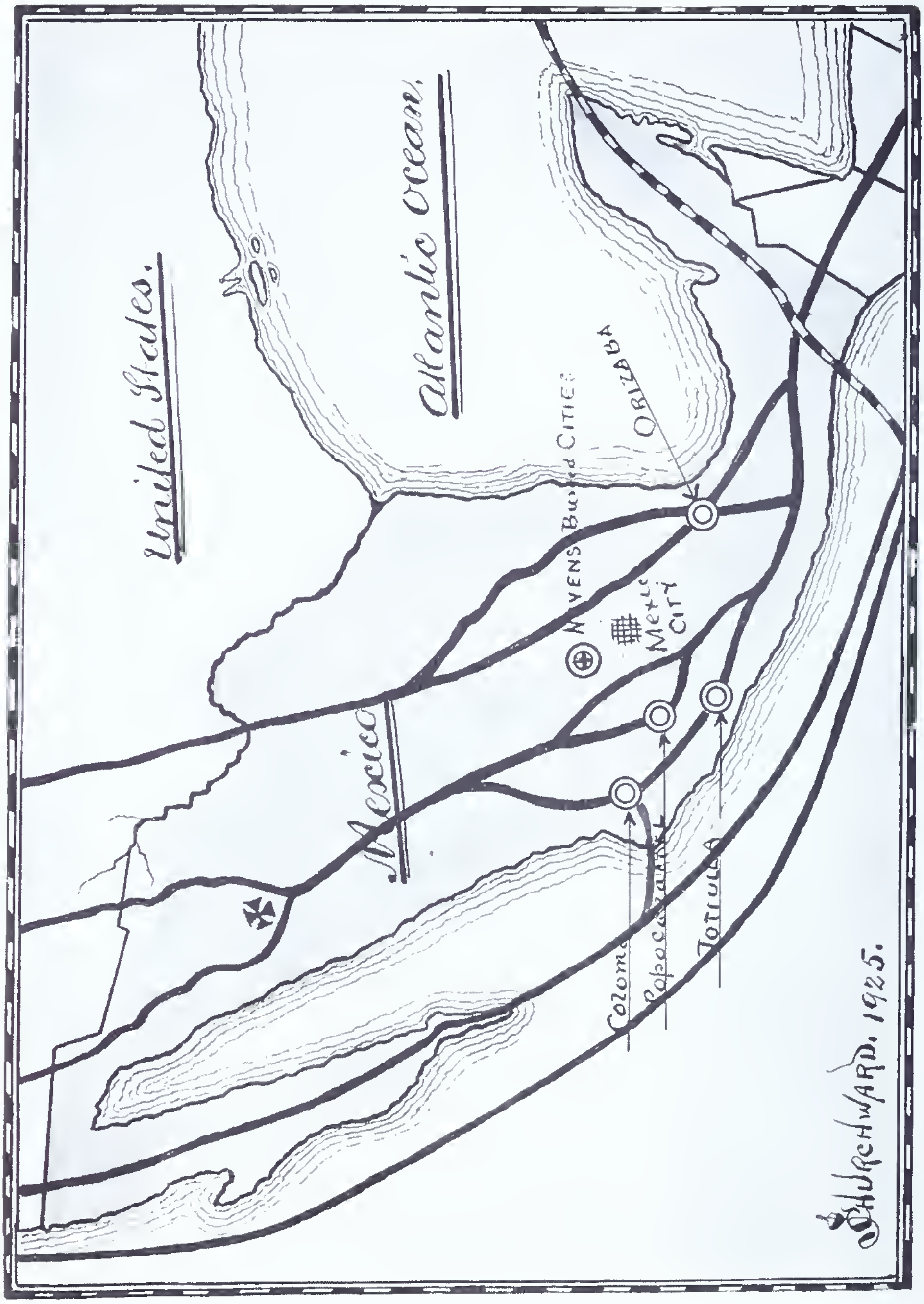
The distance which quake vibrations will go depends on the character of the surrounding rocks. If the rocks have been but little fractured by the elimination of gas chambers, the vibrations will travel very long distances. If the rocks are badly broken and not well compacted, then the vibrations do not go far. A space or crack in the rock stops the further progress of the vibration. Rocks have lines of contact. Some of these lines are long, others are short, and it is a phenomenon that a house built over a rock in contact will feel the earthquake shock quite plainly, while it is quite possible that the house next door would be off the line of contact; in this house the shock or vibration would not be felt at all.

MEXICO

The Pacific Circuit Belt, after leaving the United States, passes down into Mexico in four main parallels and the submarine parallel, making five in all.

The Rocky Mountain division passes down on the east side of Mexico. About a third of the way down it splits and forms a big loop. On the southern end of this loop stands the towering Volcano Orizaba. Leaving Orizaba, it forms another split, the two ends running into the western parallel at two different points.

The Cascade Belt, with the Sierra Nevada loop, enters Mexico on the western side. About a third of the way down, the Cascade and Sierra Nevada join again. It was at this junction that the great earthquake took place a few years ago. To the northwest of Mexico City the belt splits again, and on the center of the west arm of this split stands the wonderful Volcano Popocatepetl. Just due west of


United States.
Atlantic Ocean.
Mexico
NIVENS Buried CITIES
Mexico CITY
ORIZABA
Colome
Popocatepetl
Jorulla
Churchward. 1925.

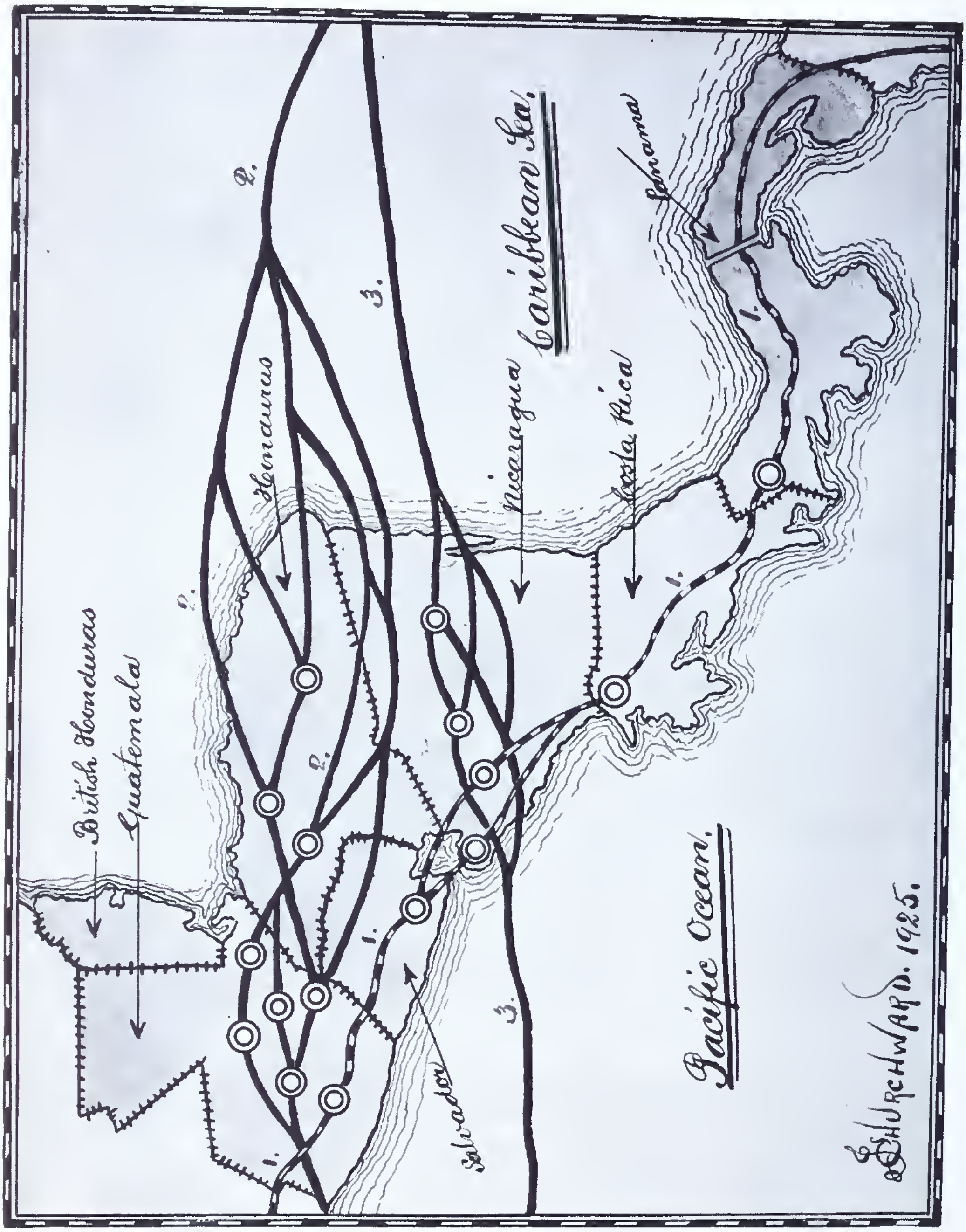
MEXICO

Orizaba, there is another split. Whether this is a spur or a loop is questionable, as the north end is not defined. The preponderance of evidence intimates that it is a loop. On it are the very active volcanoes, Coloma and Jorulla.

Near the boundary of Yucatan, the western belt is joined by the eastern belt, thus forming one belt of what in the United States were the Rocky Mountain and Cascade Belts.

The Coast Range Belt, after leaving California, passes south under lower California. On it are some craters, but I have no note of when they were active. After leaving southern California, it passes out under the ocean to South America. The submarine belt continues along the coast of lower California. Somewhere below lower California this belt runs into the Coast Range Belt, and then passes into Colombia as one belt. Between lower California and Colombia they cross the two divisions of the Great Central Belt.

The northern parallel of the Great Central Belt comes in from under the Pacific Ocean, passes under Yucatan, then under the sea to the West Indian Islands, then on under the Atlantic Ocean.



CENTRAL AMERICA

CHAPTER IX

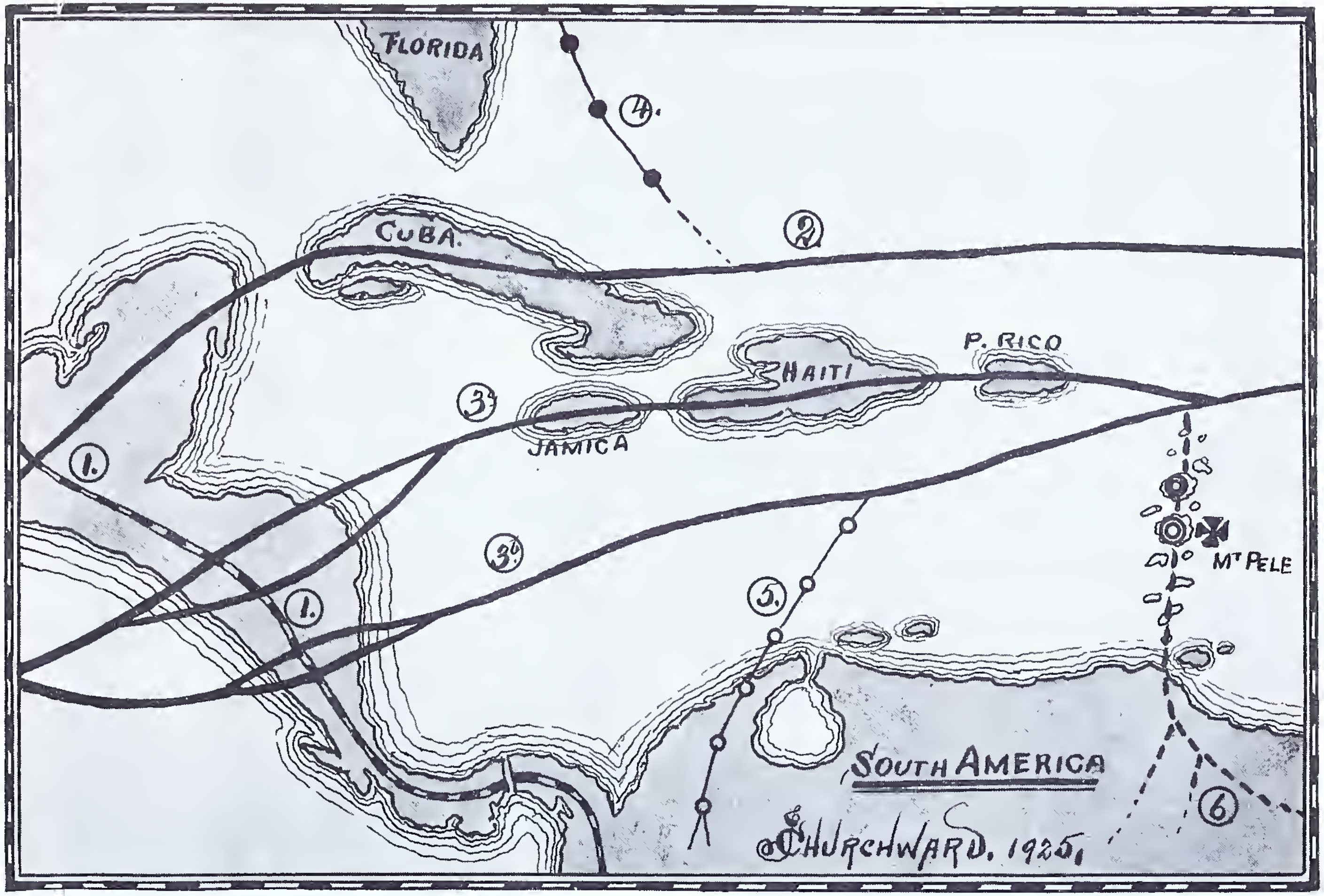
CENTRAL AMERICA

CENTRAL AMERICA is one of the great volcanic danger spots on the earth's surface. Here two of the greatest gas belts that have been forged cross each other, not once but several times, owing to the fact that both belts go through Central America in the form of many splits and loops.

The great Pacific Circuit Belt comes into Guatamala from Mexico, passes on through Salvador, Nicaragua, Costa Rica and Panama, then into South America. Underneath the Pacific Ocean and not far from the Central American Pacific shore line, two other parallels of this belt pass on their way to South America. Thus there are three belts running in a southerly direction. Added to this combination, the Pacific Circuit Belt is the most active of all.

The Great Central Belt, the Southern Parallel, comes in from under the Pacific Ocean. On entering Guatamala it splits; the two arms of the split pass under the Pacific Circuit Belt. From Guatamala one loop goes into Nicaragua, another through Salvador, with a mass of loops through Guatamala and Honduras. This southern parallel splits somewhere out under the Pacific and enters Nicaragua. It makes a second split before entering Nicaragua and passes under a loop of the Pacific Circuit. Here in this small area there are four crossings. From here on it runs in the form of many loops, and leaves Nicaragua as the end of a split. Altogether the Great Central Belt crosses the Pacific Circuit Belt in, and in the vicinity of, Central America no less than 10 known times.

Japan has got nothing on Central America as regards volcanoes. In Guatamala alone there are 15: Tajumulco,



WEST INDIES

1. The Great Pacific Circuit Belt. 2. The Great Central Belt, Northern Division. 3a and 3b. The Great Central Belt. Southern Division. 4. Appalachian Belt, Southern Spur. 5. Venezuelan Spur Belt. 6. The Brazilian-West Indian Belt.

MT. PÉLÉ

Remarkable obelisk-like spire a mile high which was forced up out of the volcano of Mt. Pélé, showing the tremendous forces at work underneath a volcano.

Tacana, Actenango, Fuego, Aqua, Atitlan, Cerro Cerchil, Cerro Calel, Cerro Quemado, Santa Maria, Quezaltenango, Pacaya, Spalda and Chingo. Their altitudes vary from 6,019 feet to 13,814 feet. The foregoing is a goodly assortment, yet Honduras surpasses it!

Should a serious block in the Great Central Belt occur at one of the submarine crossings of the Pacific Circuit Belt, it would send a huge cataclysmic wave over the coasts, probably as far south as Panama. Or, should a block occur under the land at one of the crossings, a terrific earthquake and upheaval of land would follow, resulting in enormous destruction to both life and property; and it might come at any time.

Owing to the numberless splits, loops and junctions of the Great Central Belt in Guatamala, Honduras and Nicaragua, these countries must always be subject to earthquakes.

From Nicaragua the Circuit Belt appears to rise and come near the surface, and should a bad block occur on this stretch, there is no knowing what might happen; we might have to cut another Panama Canal.

WEST INDIES

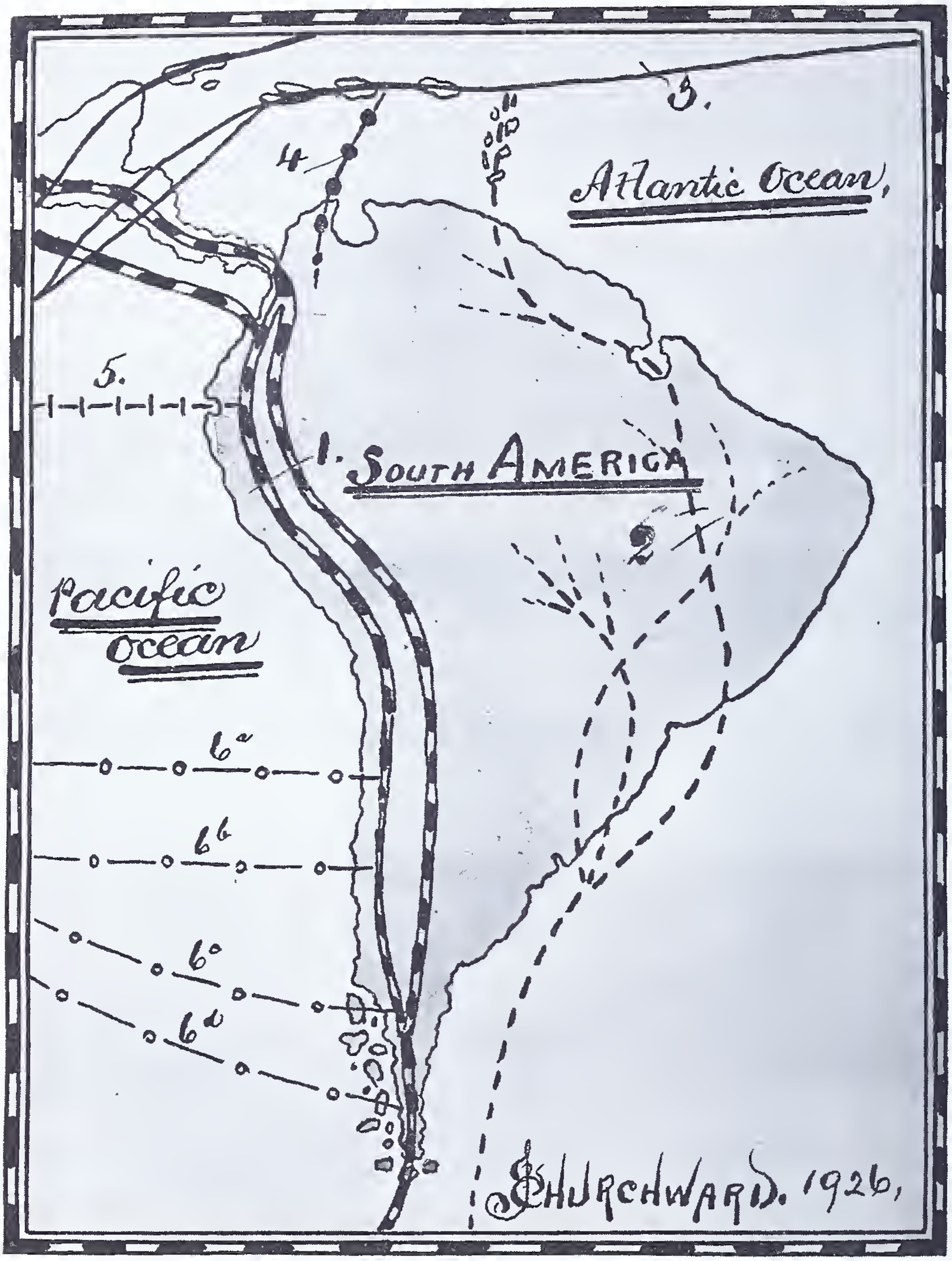
The West Indian Islands are liable at any time to suffer from volcanic workings on account of the many belts converging there. The bed of the Caribbean Sea is undermined with splits, loops and junctions, and a block at any of these points would cause earthquakes, followed by cataclysmic waves along the shores of nearby islands.

The principal belt affecting the large West Indian Islands is the Great Central Belt, marked No. 3 on the map. This belt runs in parallels and forms many loops. After leaving the islands it proceeds east under the Atlantic Ocean. The southern division, or parallel, is very much deeper down from the earth's surface than the northern, which was forged first.

The most dangerous of all the West Indian Belts is one coming up from Brazil through Guiana, and then under the Windward Islands, marked No. 6 on the map. Mt. Pélé is on this belt, and is marked on the map with a maltese cross.

This belt, from the time it leaves South America, runs closer to the earth's surface than any other belt I know of, *it is only a few miles below the surface.*

This belt has always been an active one for thousands of years. It is mentioned in old Mayan writings, such as the Troano MS., as having emerged and submerged lands at that time. Today it is so near to the surface that, if it got blocked, in clearing the block it would probably raise an island, which might either be temporary or permanent emersion. Such a phenomenon would send cataclysmic waves in over all of the low-lying lands on adjacent islands.



KEY MAP. SOUTH AMERICAN BELTS

1. Pacific Circuit Belt, South American Division.
2. Brazilian-West Indian Belt.
3. Great Central Belt, Southern Division.
4. Venezuelan Spur Belt.
5. Galapagos Submarine Belt.
6. Undefined Submarine Belts coming in from under the Pacific.

CHAPTER X

SOUTH AMERICAN GAS BELTS

SOUTH AMERICA, like North America, has two great gas belts, one on the eastern side of the continent, the other on the western side. I have been unable to get the data requisite to define properly the eastern belt, marked No. 2 on the map.

The western belt is, however, well defined, and is the South American Division of the Pacific Circuit Belt, marked No. 4 on the map. This part of the Pacific Circuit Belt is well defined by its continuous ranges of mountains with many volcanoes. Another similarity between the great belts of North and South America is shown; in both cases the belts are wide apart in the north and converge in the south.

The eastern belt, No. 2, has many ramifications in Brazil, then crosses the mouth of the Amazon, and then on to Guiana. It runs under Guiana and from there to the Caribbean Sea, where it runs northerly under the Windward Islands. It is presumable that its northern end connects with one of the parallels of the Great Central Belt. As mentioned in the West Indian Belts, after leaving Guiana it comes up very close to the earth's surface. I have made a series of maps showing the *principal* ramifications of the Andes Division of the Pacific Circuit Belt.

The ridges of the Andes are dotted from end to end with towering volcanic peaks, many of which, although in the equatorial regions, are covered with perpetual snow. The following are some of the highest peaks of the Andes:

Tolema	Altitude	18,400	feet,	in	Colombia
Chimborazo	"	20,498	"	"	Ecuador
Cotopaxi	"	19,613	"	"	"
Coropuna	"	22,000	"	"	Peru

Husacaren	Altitude	22,000	feet,	in	Peru
Sarata	"	21,490	"	"	Bolivia
Illimani	"	21,190	"	"	"
Acongagua	"	23,390	"	"	Chile
Tupungato	"	22,393	"	"	"

I find in different works on South America that many of the mountains are known by various names. No two authorities give indentically the same names, so I cannot say that the names I give are the most popular and most frequently used in all cases. I have marked many volcanoes along the belts, not all, by any means. Some are active, others are temporarily quiescent. All mountains that run 20,000 feet and over are made larger than the other, with the outside ring extra heavy. Those reported to be in eruption at the time of this writing, I have shown with a cross within the center ring. Many of the craters of the Andes are written of as being extinct. This is an error, as there are no extinct volcanoes on the Andes. They are only quiescent, awaiting the conditions that will place them among the active ones again.

On the equator a feeding belt comes in under the Pacific Ocean from the Galapagos Islands. I believe that this belt originally ran clear across under the Pacific Ocean to Asia, entering via Japan, but that between the Galapagos Islands and the Caroline group the belt for a long distance has caved in, so that the belt now virtually starts some distance west of the Galapagos Islands. The belt now is only from 600 to 800 miles long.

I know of no other volcanic situation in any part of the world that presents so unique a volcanic problem as the Andes discharging belts.

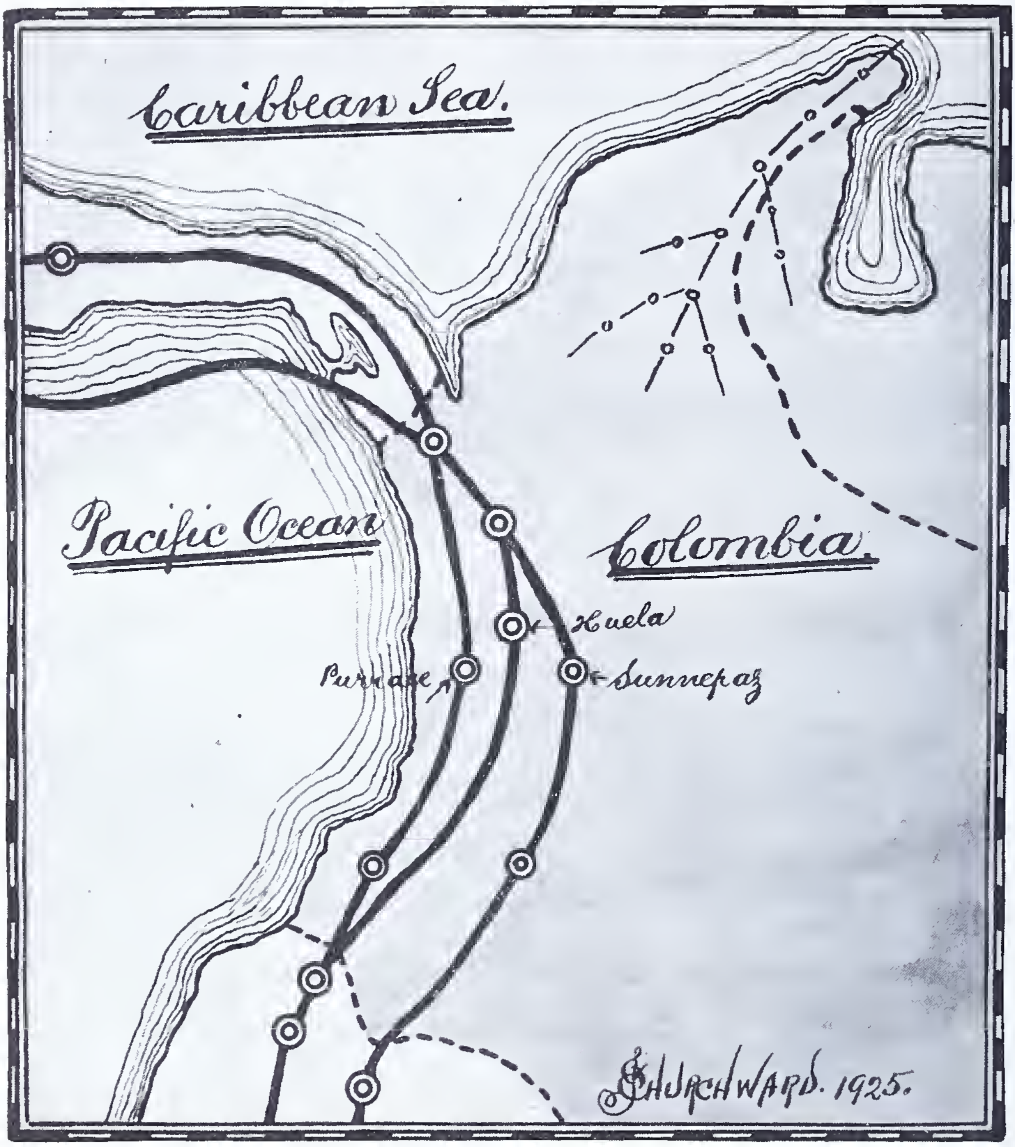
Unlike any other gas belts, *these are above sea level.* When gas belts were first forged, they were forged about 15 to 18 miles below sea level. In the Andes we now find that these belts have been carried up to 3 miles *above* sea level, by belts that were forged directly beneath them. These old belts were not destroyed by the elvation of the land through which they run, as has been the case with several other belts. The new deep belt did not form volcanoes of its own, but discharged its accumulations of gases through fissures into the old belt, and then through the volcanoes of the old belt. The depth of the Andes discharging belt is easily checked off at the volcano *Pichincha* in Ecuador. This volcano is 15,918 feet above sea level, and is one of the few volcanoes whose crater always remains open. 2,540 feet down from the crater's mouth can always be seen the belt with the lava boiling and rolling in it.

Several eastern end branches of the Southern Pacific Cross Belts enter under Chile, and discharge their eastern gases through Andes volcanoes, No. 6.

A small unimportant spur belt leaves Colombia and passes under the Caribbean Sea to join a West Indian Belt, No. 3. I have no record of any serious earthquakes having occurred on this belt. That, however, is no criterion. They may have occurred without my getting advices about them.

The volcanic situation in western South America may be summed up as follows:

There are two principal ranges of volcanic mountains running from Panama to the southernmost point of Chile, Cape Horn, a distance of 4,400 miles. Under each of these ranges there are two belts, one near the surface, the other deep down below it. The deep belt has no volcanoes on it, but discharges its gases into the upper belt. All volcanoes are on the upper belt. A very large proportion of the gases which are discharged from these volcanoes come in from the Pacific submarine cross-belts.


Caribbean Sea.
Pacific Ocean
Colombia.
Huela
Purrace
Sunnepaz
J CHURCHWARD. 1925.

COLOMBIA

The eastern range is the older of the two. Its surface rocks date back to Mesozoic Times, Cretaceous rocks appearing among the strata. A very large proportion of the surface is composed of Granite and Gneisses, which have been brought up from below by volcanic upliftings. The western range is much younger, the surface showing Tertiary Rocks, so that we may conclude that when the Western Gas Belts of South America were first being formed, it is quite possible that some of the land now forming the western range was under water.

The general altitude of the eastern range is higher than the western, indicating that the lower belt on the eastern range is generally deeper down than that of the western. We have perfect records, inscriptions, telling us that these mountains were not in existence 16,000 years ago, as I show in the "Children of Mu."

What lifted the original belts from below the level of the sea to three miles above it? There is only one possible agent, and that is not a glacial period, but volcanic gases. This is verified by the fact that an immensely large proportion of the strata of the Andes Mountains are substantially in vertical position.

I think it can safely be said that the two deepest belts in the world are the lower belts of the Andes and the lower belts of the Himalayas and, of the two, the Himalayan are the deeper. A belt can be formed just so deep, and no deeper, on account of the rocks being hot and to an extent soft and plastic. A perfectly solid rock is required to lift what is above.

COLOMBIA

Colombia is the most northerly of the Latin Republics of South America. It has coast lines both on the Pacific Ocean and on the Caribbean Sea.

Colombia is the commencement of South America from Central America, and here is the commencement of the Andes Range of mountains, whose towering peaks continue on, unbroken, to Cape Horn, a distance of 4,400 miles. There are many ramifications of the Andes Division of the Pacific Circuit Belt. A general description of them would be, three parallels. The belt enters Colombia from Panama as a single belt, then joins the submarine belt from North America. Then the belt splits, forming an extreme eastern and an extreme western range. These two ranges continue the whole length of South America to Cape Horn. Just south of the first split, another split takes place on the western range. This arm runs in a diagonal line to the southwest corner of Colombia, where it runs into the Eastern Range. Thus there are three ranges paralleling each other in Colombia, but two only pass down into Eucador, as two join before they reach that country.

While the volcanic situation in Colombia is most interesting and full of surprises, it is not nearly as fascinating as will be found further south. While the ranges commence in Colombia, it is further south where their full development is to be found.

From a friend in Colombia I received the following:

"We have a peculiar phenomenon in Colombia; our geologists say it is volcanic. One of our mountains is constantly shifting its position. It moves in a certain direction until a certain volcano goes into action, then as the eruption dies out it falls back again into its original position. This moving mountain is a well known phenomenon in Colombia; any of our geologists here can tell you all about it."

Unfortunately my correspondent did not give the necessary details, upon which to base an opinion, such as the area of the mountain and its elevation or how far it is from the volcano in question. Is the volcano north or south of the moving mountain? Does it move towards the volcano or away from it? This is very important in defining the situation of the cause. Are any cracks or fissures found at the base of the mountain, or a short distance from it; if so, do they emit gases?

One thing is certain; that is, the mountain shifts as described. It is either lying over a gas chamber or a pocket of gases. The size and position of the chamber or pocket could only be determined by answering the foregoing questions, and maybe others would be needed as well.

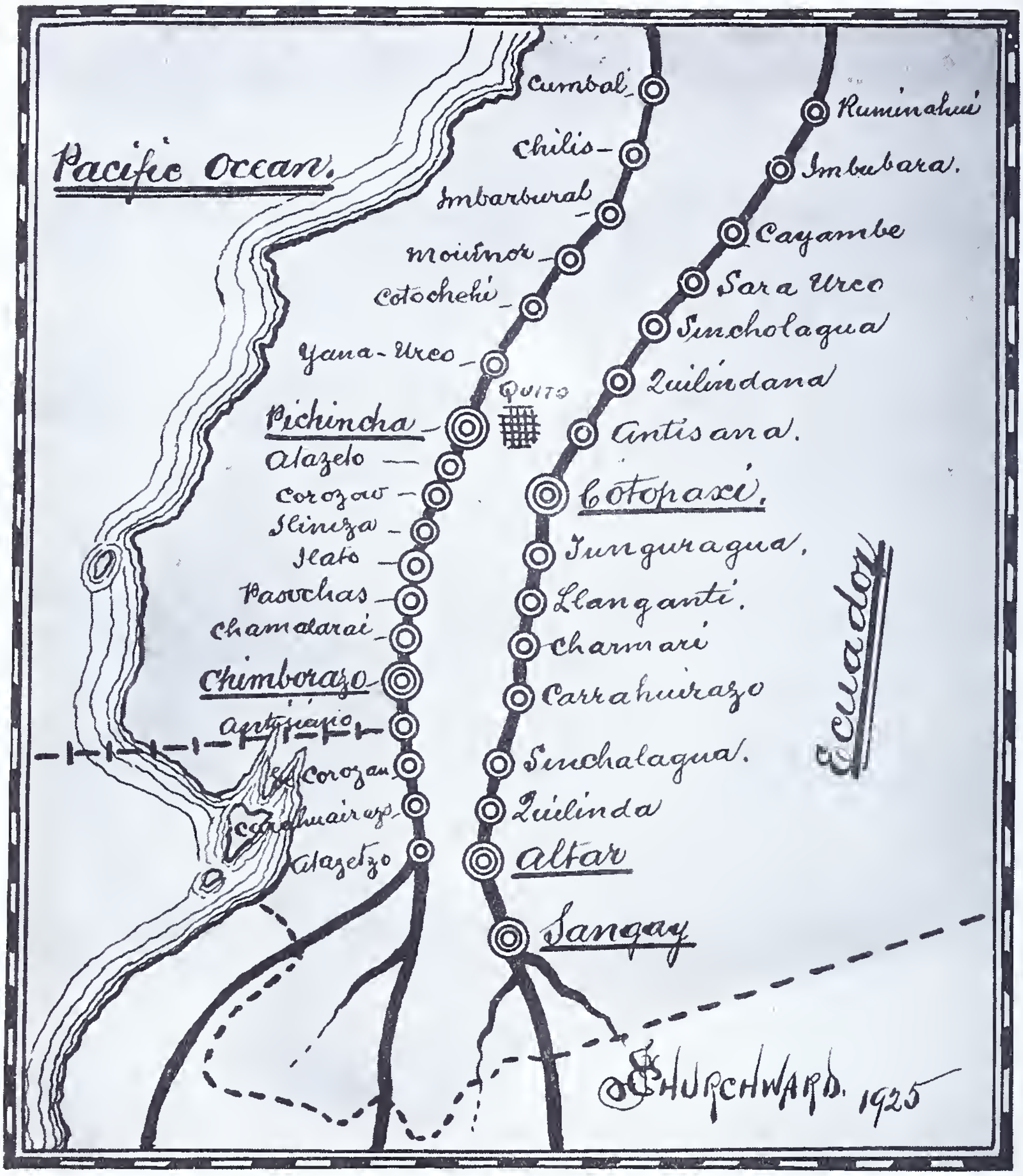
The area around this mountain is dangerous, for if a serious crater block took place at the volcano, the neighborhood of this moving mountain would be the line of least resistance. This mountain would probably be blown to pieces, and its rocks sent hurtling through the air for many miles around. What the rest of the tale would be, no one can say.

There is an independent little belt which starts in the north of Colombia and passes out under the sea, towards the West Indian Islands. I have no data of bad behavior of this belt.

That chambers and pockets of gases still exist in the Andes, there is no doubt. In addition to these, certain phenomena have shown that small subterranean lakes also exist, similar to those of Yucatan. The western part of South America is a risky place to live in.

Colombia has one very high peak, Tolema, which pierces the azure blue at an elevation of 18,400 feet.

It is reported to me that two of the Colombian volcanoes are never quiescent; if they are not in actual eruption, they are at least smoking.


Pacific Ocean.
Cumbal
Chilis
Imbarbural
Mojanda
Cotocheha
Yana-Urco
Quito
Pichincha
Alazelo
Corazon
Iliniza
Ilato
Pasochas
Chamalarai
Chimborazo
Antizanio
Corozan
Carahuirazo
Alazetzo
Ruminahui
Imbabura.
Cayambe
Sara Urco
Sincholagua
Quilindana
Antisana.
Cotopaxi.
Tunguragua.
Llanganti.
Charmari
Carrahuirazo
Sinchalagua.
Quilinda
Altar
Sangay
Ecuador
Churchward. 1925

ECUADOR

ECUADOR

Ecuador is noted for the many immensely high volcanic peaks that form two towering lines down through the center of the country. There are but few ramifications until we get down near the southern end. The whole length of Ecuador, from north to south, is only about 400 miles. Yet in this 400 miles there are more active volcanoes than are to be found in any 400 miles elsewhere in any part of the earth.

The Andes Mountains pass down through Ecuador in two parallel ranges, locally called Cordilleras, the Eastern and Western Cordilleras. Their lines are from north to south. On these two ranges of about 400 miles each there are no less than 28 volcanoes, either active, smoking or quiescent. There are 11 volcanoes on the eastern range, and 17 on the western. Nowhere on the face of the earth is there such an assemblage of volcanoes at such high altitudes. The two most noted volcanoes in Ecuador are Cotopaxi and Pichincha.

A noted geologist, writing on Ecuador, says:

"The great Cotopaxi is the most terrible and dangerous volcano in Ecuador, and the highest active volcano in the world (19,613 feet). From its summit smoke curls upwards unceasingly."

"Pichincha is always looked upon with dread. Its destructive eruptions and its close proximity to the capital, Quito, makes it a terrible menace. Red hot lava in the crater may be seen rising and falling at all times."

THE EASTERN CORDILLERA (RANGE)
(North to South)

Name	*Altitude*	*Name*	*Altitude*
Ruminahue	15,607 ft.	Sara Urco	15,502 ft.
Imbabura	ft.	Sincholagua	16,365 ft.
Cayambe	19,186 ft.	Quilindana	16,235 ft.

Name	*Altitude*	*Name*	*Altitude*
Antisiana	19,335 ft.	Carahuirazo	.... ft.
Cotopaxi	19,613 ft.	Chinchalagua	.... ft.
Tunguragua	16,690 ft.	Quilinda	.... ft.
Llanganti	15,070 ft.	Altar	17,730 ft.
Charmari	.... ft.	Sangay	17,464 ft.

THE WESTERN CORDILLERA (RANGE)
(North to South)

Name	*Altitude*	*Name*	*Altitude*
Cumbal	.... ft.	Corozow	.... ft.
Chilis	.... ft.	Iliniza	17,405 ft.
Imbabural	.... ft.	Ilato	.... ft.
Mojanda	14,080 ft.	Pasochas	.... ft.
Cotochehi	16,301 ft.	Chamalari	.... ft.
Yana-urco	over 15,000 ft.	Chimborazo	20,498 ft.
Pichincha	15,918 ft.	Antisiana	.... ft.
Atazetzo	14,892 ft.	El Corozan	15,871 ft.

The foregoing are lists of the principal mountains on each range, as given in South American maps. I have been advised by those who have lived long in Ecuador that it is well known that the country has no accurate maps, so that it will be seen that the various details regarding the order on which they appear on the map is most likely subject to correction, the names also. I have found one single South American mountain rejoice in as many as five different names; most have two or three, and the only ones which are reliable are such as the well known mountains Pichincha, Chimborazo, Cotopaxi, Altar and Sangay. Even Enock, the great South American geologist, tells us that the maps are not to be depended on.

Returning to the great volcano, Cotopaxi. Cotopaxi is 2,000 feet higher than Popocatapetl in Mexico, and 15,000 feet higher than Vesuvius, in Italy. Chimbarazo has a large crater, but on account of its being quiescent for so long a time, it is looked upon as being extinct. There are no extinct volcanoes on a live belt. They may be quiescent, but not extinct. The probability is, the crater became so badly blocked that the gases could not open it up, and found lines of lesser resistance in the volcano Pichincha, or some other nearby volcano. Enock mentions that "when Tunguragua became a volcano and entered into action, Cotopaxi became less vigorous."

Ecuador offers the scientist the greatest opportunity for studying the workings of gas belts, for nowhere on the face of the earth, that I know of, is there such a stretch of a discharging belt so near to the surface, with so many volcanoes upon it.

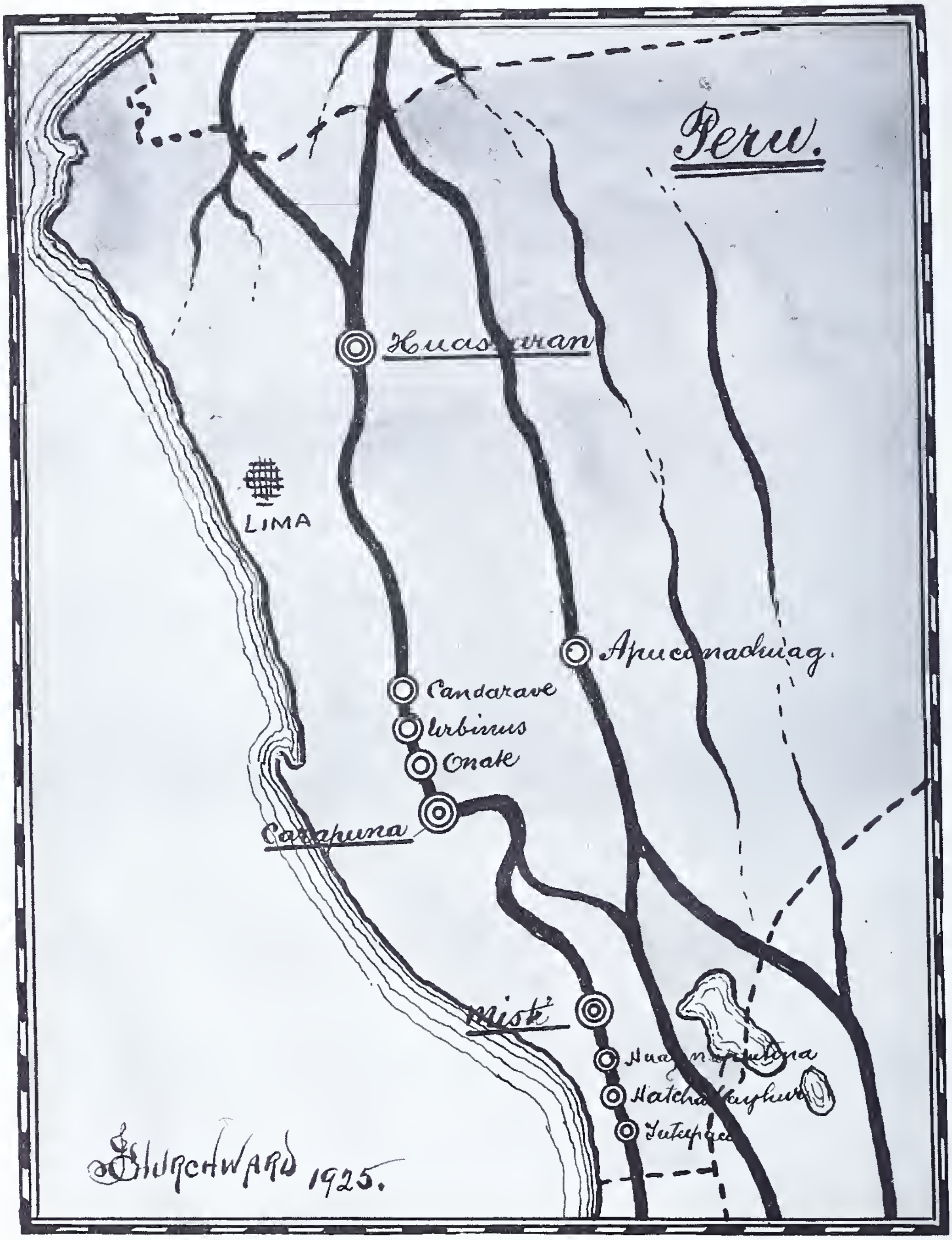
One particular phenomenon I have frequently noted; that is, the deeper a belt, the fewer volcanoes there are on it, and the fewer earthquakes come from it; and that most of the deep down belts discharge their gases into a belt above.

A careful study of the volcanic situation in Ecuador as far as is known shows that the *discharging* belt lies very close to the surface. This is confirmed by Pichincha, where the hot lava can be seen only 2,800 feet down.

It seems unquestionable that the volcanic situation in Ecuador is not completely settled. Enock mentions several cases where the land has gone up a little and other cases where it has sunk a little.

PERU

The Andes Mountains continue down from Ecuador through Peru in the form of two great or principal ranges, with various spurs running in various directions. As there are no volcanoes on any of these spurs, it is evident that whatever gases may be flowing into them are passed on to the main belts for discharge. According to Enock, the two main ranges run from about north-northwest to south-southeast, and the distance between them varies from 90 to 120 miles.


Peru.
Huascaran
LIMA
Apucanaduiag.
Candarave
Urbinus
Onate
Catapuna
Misti
Huaynaputina
Hatchaflayhua
Tutupaca
J. Churchward 1925.

PERU

The two nighest peaks in Peru are Huascaran, 22,180 feet, and Coropuna, 22,900 feet. Coropuna once belched forth fire, lava and smoke. She has, however, been quiescent for a long time. There are several other peaks in Peru that reach 19,000 and 20,000 feet.

All of the principal Peruvian Volcanic Peaks are on the western Range. From north to south they are: *Huascaran, Candarave, Urbinus, Onato, Corapuna, Misti, Huaynaputina, Hatchalayhua* and *Tutupaca.*

On the eastern Range there is only one lonsesome volcano—*Apucanachuag.* When the rest below saw the name that was given to this one they all turned tail and went back again. Can any one blame them?

Apart from the volcanic and gas belt ramifications, Peru has an intensely interesting geological problem to solve, with archaeology a twin sister.

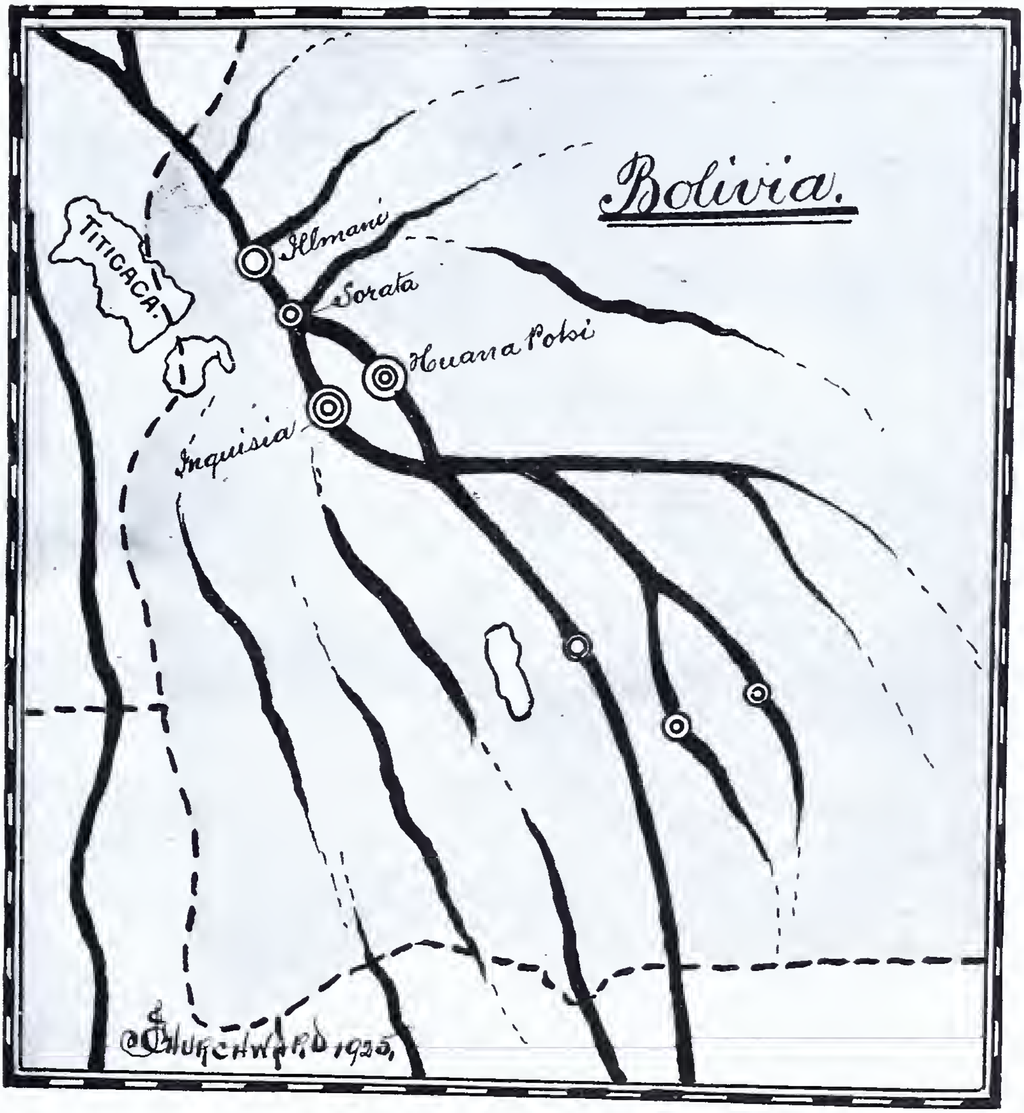
The rock formation of the Andes in Peru is composed of ancient rocks, Granite and Gneisses being very prominent, thus showing from what great depths they were forced up by the volcanic gases. All of the Andes rocks stand nearly vertical; it could not be otherwise, as the strip is so narrow. It shows that there was a narrow continuous line, thousands of miles long, which was the line of least resistance.

C. Reginald Enock. "Peru"—Page 190, says: *"Upheaval of the Andes.* As before stated, the Andes have been upheaved in *recent* geological times. Perhaps by *successive* stages. It may be even that aboriginal man beheld some of the changes in these regions, and in this connection the conditions encountered on the great uplands give rise to certain interesting reflections regarding the epoch of their elevation to their present high altitude. How did the large population which formerly existed there subsist in a region so lofty, where few food products grow? A large population such as must have been required to furnish workers to move the great monoliths and construct the colossal buildings encountered there and in the Titicaca basin? The suggestion has been made, even, that the Andes have reached their final elevations since the time of man's habitation of them, and since the epoch of the great megalithic structures. Whilst it is doubtful if this explanation could be accepted, it is, nevertheless, remarkable that these works and the evidences of former population exist at an elevation above sea level where corn did not grow."

Enock touches the feelings of our present-day scientists very tenderly with velvet gloves when he says, "It is doubtful whether this explanation could be accepted." He probably knows, as most of us know, that our scientists today do not want facts. They hate them because it upsets all the fairy tales they have been building up for many, many years. What they want, and what they will readily accept, is some ultra-cracked-brain theory that in some way boosts up their mythical teachings; and the more technology, impossible to understand, the better it is, for here is a bluff for the public with no possible comeback.

Enock is quite right, Peru was thickly peopled before the mountains went up. The great structures at Titicaca were built before the mountains were raised, and this was less than 16,000 years ago, as is shown by the deciphering of the great door at a temple entrance at Titicaca, of which I showed a cut with its decipherings and translations in my first book: "The Lost Continent of Mu."

The Titicaca phenomenon is corroborated by duplication in many parts of the earth, notably Niven's Mexican Buried Cities, and the road cut on Capital Hill, Smyrna, Asia Minor. These are facts that kill their theories; there-


Bolivia.
Titicaca.
Illmani
Sorata
Huana Potsi
Inquisia
© J. Churchward 1925,

BOLIVIA

fore they have been religiously left alone, as being too dangerous to tamper with.

Very little is known about Peru back of 1,000 years ago. Within this time there flourished that wonderful Inca civilization. The Incas were Quiche Mayas who intermarried with the Amaris people.

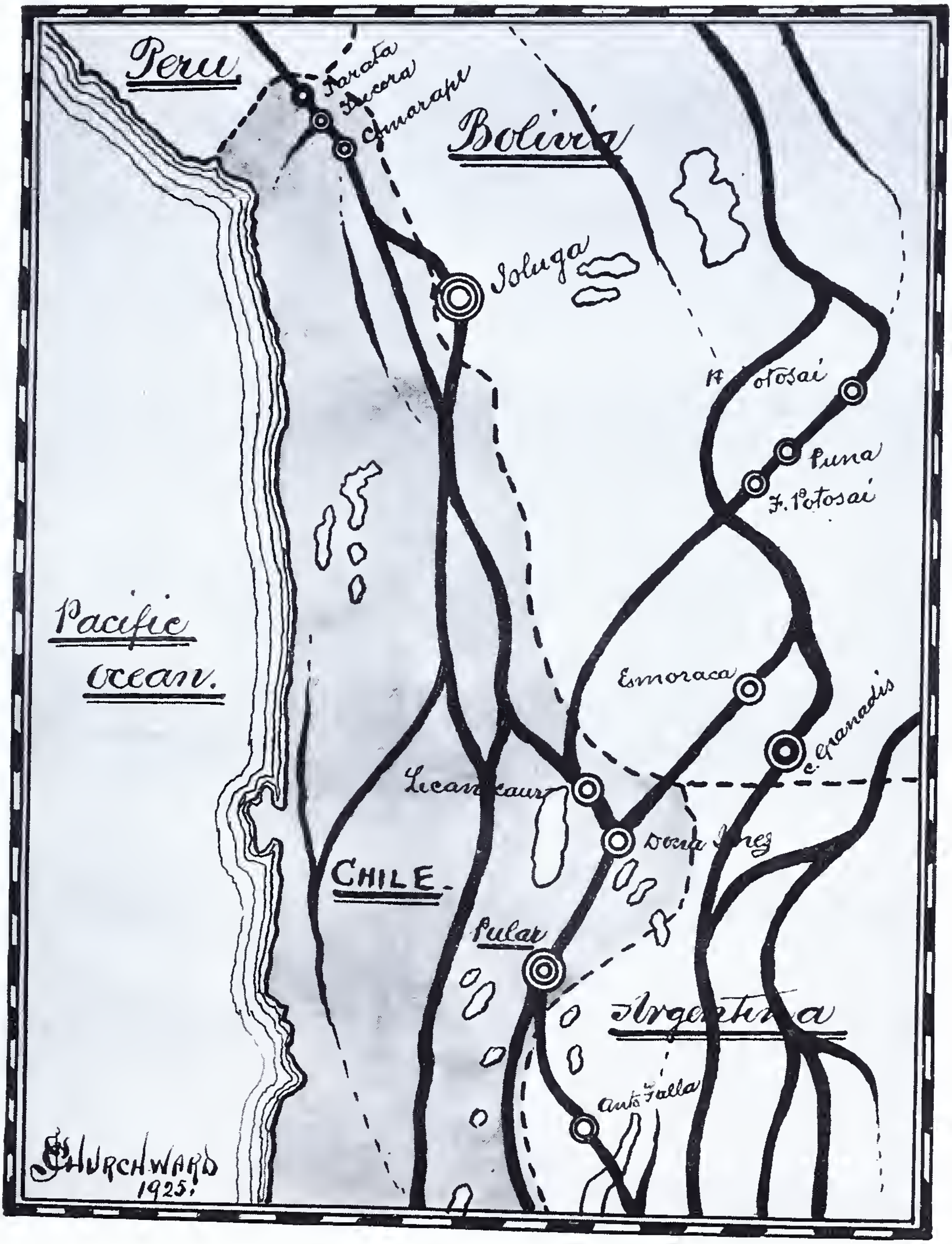
Bolivia

The Andes leave Peru in three parallels, the third of which is formed by a split in the eastern range north of Lake Titicaca. This third parallel is really only an immense loop, as it joins the eastern Belt again in Argentina. All of the highest peaks are on the split which runs completely through Bolivia. The two highest peaks, which are within sight of Titicaca, are Sorato, 23,600 feet, and Illimani, 21,119 feet. Many of the other Bolivian Peaks run from 18,000 to 20,000 feet.

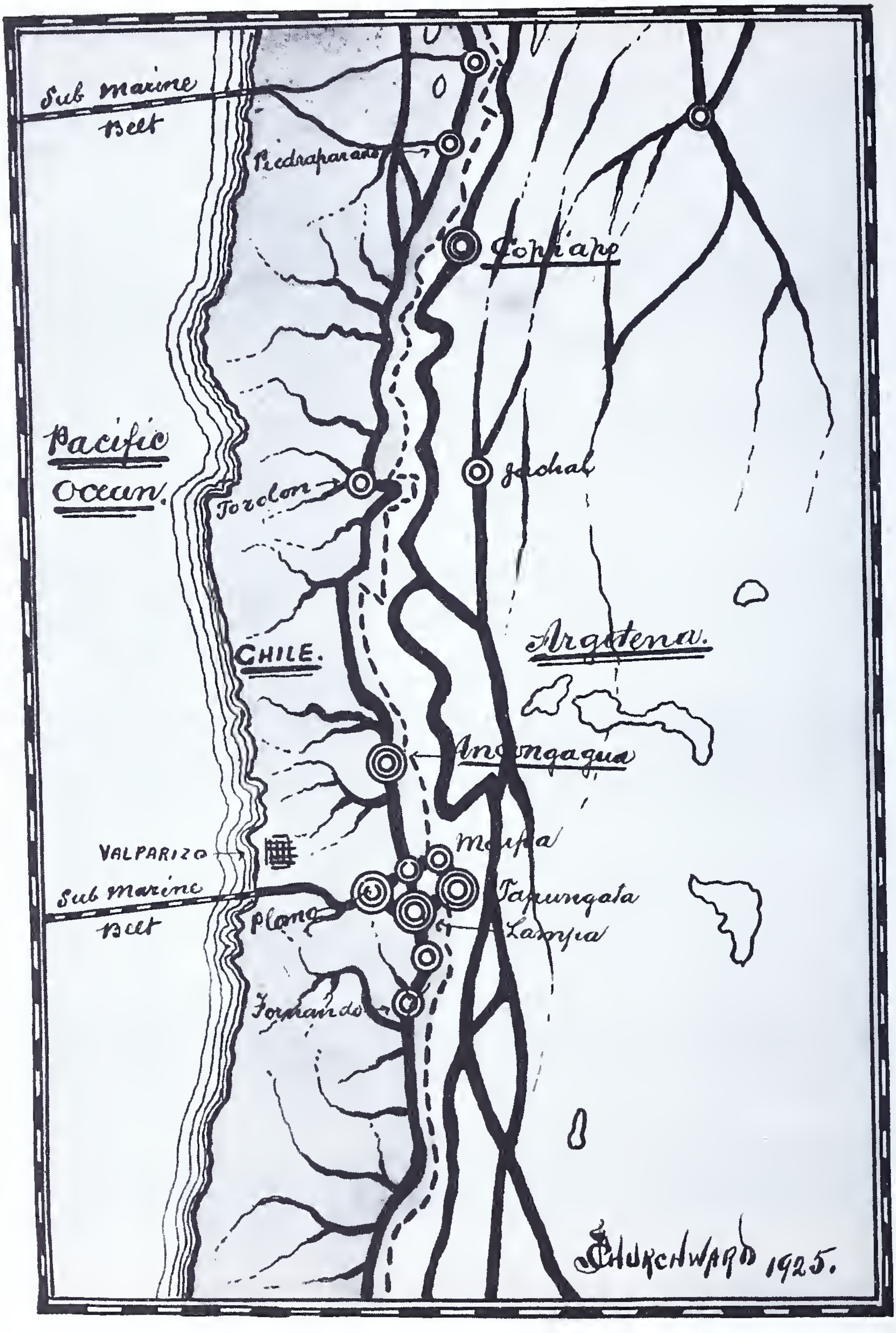
There are many volcanic ramifications in Bolivia of which I have never been able to get the details; neither have I been enabled to obtain the list of peaks which have craters. The information which I have obtained from various sources has been so conflicting I cannot use it.

Chile and Argentina

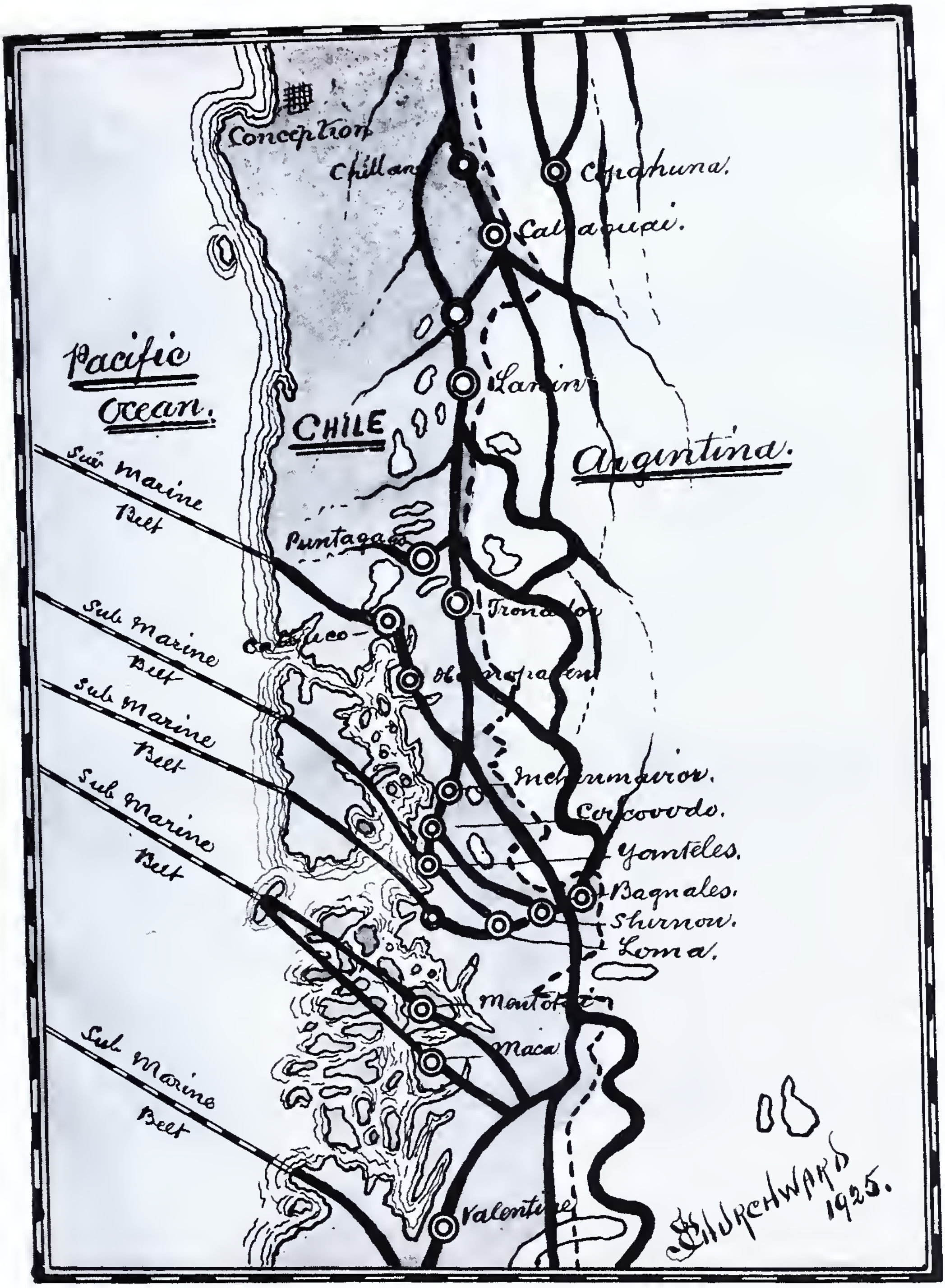
I have been unable to find two maps identically alike in all details of Chile, Bolivia and the Argentine. I have made a composite map of three which apparently give the most details. Of course I do not claim it to be accurate in all details, but it does show the general run of the Andes Division of the Pacific Circuit Belt fairly well. Being a long, unwieldy paper for those reading, I have divided it into sections, one section to a page of the book. Except for a few of the most notable mountains and volcanoes,



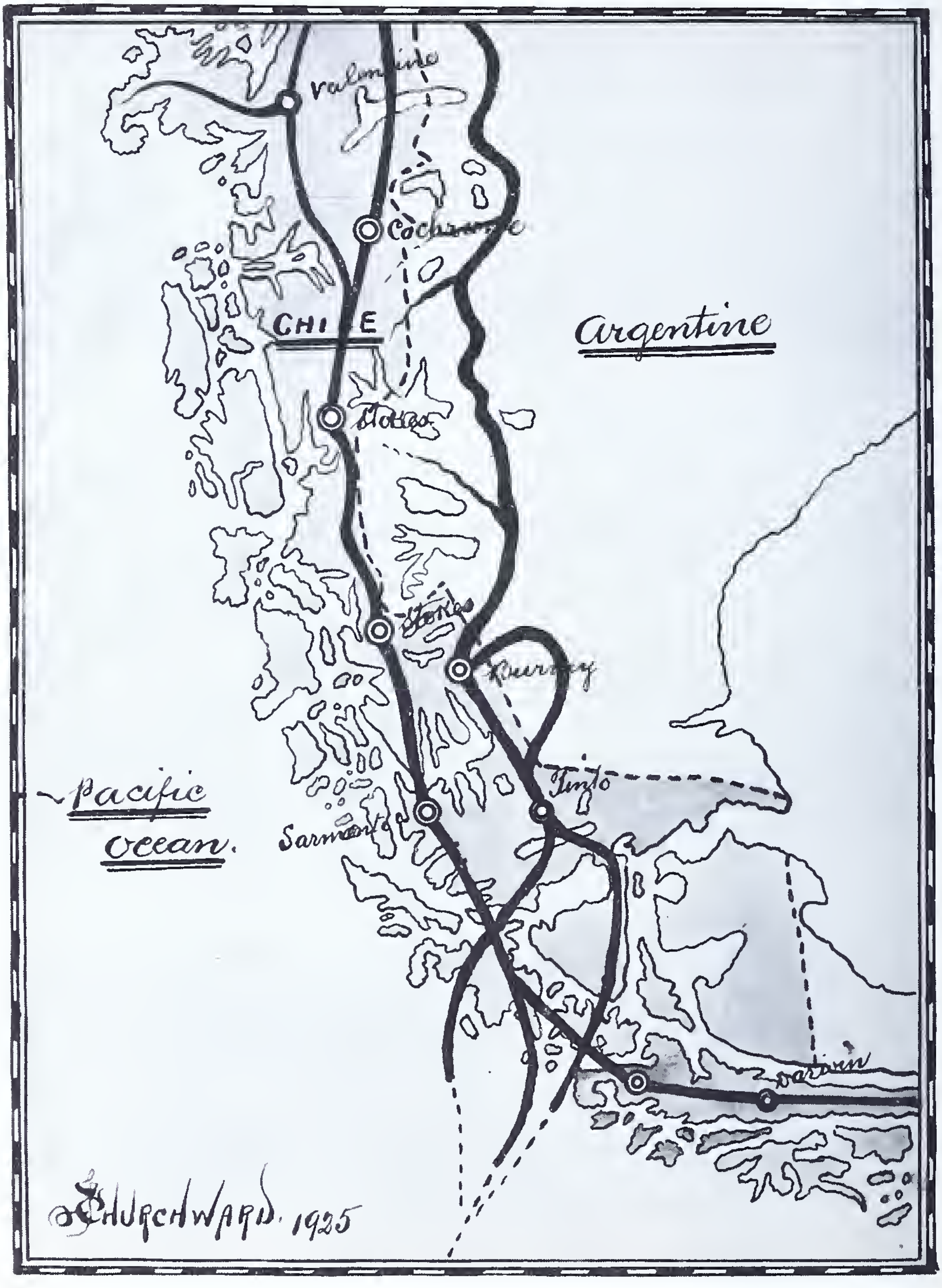
CHILI (FIRST SECTION)



CHILE (SECTION 2)



CHILE (SECTION 3)



CHILE (SECTION 4)

they are known by several names, each country apparently having its own names for the Andes Mountains.

In Chile the Andes have attained their greatest grandeur, and there we find the highest mountains on the two ranges.

The Andes, from Peru and Bolivia, run to Cape Horn through Chile and Argentina in two Main Ranges; a third appears, but being formed by a loop, for all practical purposes they must be looked upon as two. My sketch of the ranges is only comparative, therefore there is no detailed accuracy claimed. It does, however, show the main ramifications of the belt going through the southern part of Bolivia, Chile and Argentina. If no other mountains in the world existed to prove the geological assertion that "mountains were raised by contractions of the earth's crust in cooling" is an error, the Andes Mountains in Chile would prove it to be an error beyond all controversy, and without the aid of any other mountains to help them.

I have marked on the map a great number of very high peaks. Some are volcanoes in an active state, others volcanoes that are quiescent, and the balance—if not volcanoes, some are questionable—are at least of Volcanic Origin. I have marked the exceedingly high mountains, and the notable mountains also, with a treble ring, others with a double ring only.

Following is a list *of what I find stated* to be volcanoes. The list commences at the north and follows on to the southernmost end of Chile.

Name	*Altitude*	*Range*	*Name*	*Altitude*	*Range*
Licancauer	19,406 ft.	East	Puchapucha	20,997 ft.	East
Dona Inez	.... ft.	East	Acongagua	23,910 ft.	West
Isluga	21,476 ft.	West	Lampa	.... ft.	West
Antofella	.... ft.	West	Tapungata	23,000 ft.	West
Piedraparda	.... ft.	West	San Jose	.... ft.	West
Copiapo	19,685 ft.	West	Maipa	17,657 ft.	West
Incagnasi	21,334 ft.	West	Fernando	.... ft.	West

Name	*Altitude*	*Range*	*Name*	*Altitude*	*Range*
Aconquija	17,740 ft.	East	Hornaparen	.... ft.	West
Chillan	.... ft.	West	Corcorado	7,546 ft.	West
Llamas	.... ft.	West	Yanteles	6,725 ft.	West
Callaquia	.... ft.	West	Mentotai	5,446 ft.	West
Lanin	.... ft.	West	Fitzroy	7,000 ft.	West
Calbuco	.... ft.	West			

I may also mention that no two writers give exactly the same elevations for the peaks, so that any altitude I have given is subject to correction.

Name of Peak	*Altitude*	*Range*	*Volcanic State*
Acongagua	23,910 ft.	West	Active
Tupungata	23,000 ft.	West	Active
Isluga	21,476 ft.	West	Active
Incangaguasi	21,334 ft.	West	Active
Puchapucha	20,947 ft.	East	Active
Granadas	20,400 ft.	East	Quiescent
Plomo	20,000 ft.	West	Quiescent
Pular	19,947 ft.	East	Quiescent
Copaipo	19,685 ft.	East	Active
Licancauer	19,406 ft.	East	Active
Aconquija	17,740 ft.	East	Active
Esmoraco	17,717 ft.	East	Quiescent
Maipo	17,657 ft.	West	Active
Potosi	16,152 ft.	East	Quiescent
Valentine	12,697 ft.	West	Quiescent
Cochrane	12,139 ft.	West	Quiescent

The foregoing is a list of the volcanoes over 12,000 feet, with the state they were in at the time this table was compiled (Spring of 1904).

Various branches, or maybe various independent belts, that run across under the bed of the Pacific Ocean enter under Chile and empty out their gases through volcanoes on the Western Range. From various phenomena and data which I have collected, I believe there are three submarine cross-belts under the Pacific Ocean. Not knowing, I have marked all of the submarine entries into Chile in the same form of line.

One of the largest of these submarine belts I have been able to trace partially. This belt splits to the west of Easter Island, the northern branch entering Chile somewhere about 25 degrees South Latitude, and the other branch about 10 degrees further south.

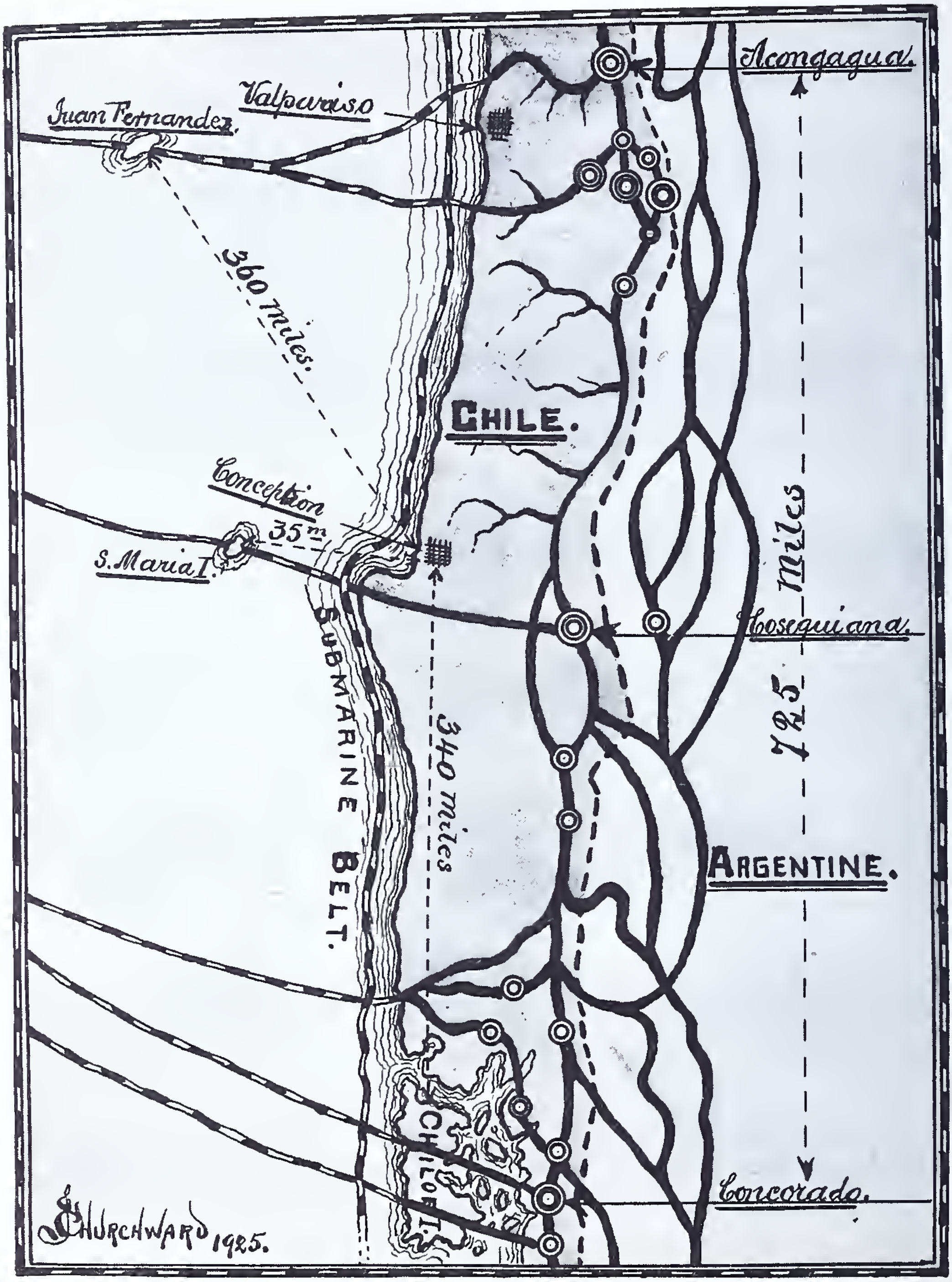
It is a notable fact that on the western range, directly in from where the north arm of this submarine belt enters Chile, is found a nest of some of the highest peaks of the Andes: Plomo, 20,000 feet; Tupungata, 23,000; Aconga-gua, 23,910; Maipo, 17,657; and two others. Four of them are active at the time of this writing. This interesting group of peaks may have received some of their altitudes through the gases coming from the submarine belt.

Very few scientists appreciate the very serious volcanic condition of Chile. The greatest volcanic danger to Chile does not lie in the mass of belts that underlie her foundation, her whole length from north to south, but in her connections with apparently the whole submarine cross-belt system under the bed of the Pacific Ocean. Chile appears to be the one that gets all these gases to dispose of. In addition to all this, there is a submarine belt running north and south only a little distance from the Coast of Chile. This belt *crosses* everything that comes in from under the ocean.

There is, off the Coast of Chile, a volcanic area that has every indication of having a large live gas chamber not very deep down; in fact pretty near to the bed of the ocean, and another similar phenomenon to the west of this.

The first chamber has a length of 700 miles from Juan Fernandez Island, on the north, to Chiloa Island on the south. I have traced this condition 400 miles from shore, but how much further it extends, or whether it actually extends beyond this point, I cannot say. The northern end of this chamber is a little north of the Tropic of Capricorn, the southern end about the 50th parallel South Latitude.

South American history has recorded this. I have



SOUTH AMERICA'S SUBMARINE BELT
Showing the area of the Concepcion Earthquake

drawn a comparative map so that any one can see at a glance the volcanic conditions of Chile and the immense area that is being constantly affected, roughly 700 miles by 400 miles.

EXTRACT FROM DARWIN'S "AROUND THE WORLD"

Darwin was in Chile at the time when the destruction of Concepcion took place, so that no more reliable information could be wished for, for he saw with his own eyes.

"Chile. 20th February, 1835." "The volcanoes Concorado, Acongagua and Coseguiana went into eruption within 6 hours of each other *after* the earthquake at Concepcion." (Each of these volcanoes is at the end of a Pacific cross-belt.)

"I was surprised to learn afterwards that Acongagua, 480 miles (?) north of Concorado, was in action the same night. It is difficult even to conjecture whether the coincidence was accidental or shows some subterranean connection." (Concorado, Coseguiana and Acongagua are all three on the western range of the Andes Division of the Pacific Circuit Belt, therefore in direct communication with each other. The actual trouble-maker was either the Chilean Coast Line Submarine Belt, or one of the Pacific Cross-Belts, with a possibility that the two were involved, and primarily it might have been the great live gas chamber that lies below the bed of the Pacific off the coast of Chile. That the end of the chamber may possibly extend under the land is suggested by the fact that the coast was permanently raised a little. Against this, it may be that the coast was not raised but that a chamber was blown out, and the water required so fill in the chasm lowered the level of the waters a little, so that apparently the land went up instead of the water going down.

"A great tidal wave about 3 to 4 miles out in the bay was seen approaching the land; it was about 23 feet high and without a crest; this wave was followed by two others."

These were not tidal waves; the tides had nothing to do with them; they were small volcanic cataclysmic waves. I have seen this same phenomena three times, twice when I have been on land, and one which our ship met at sea, but it was more than 23 feet high. It made a wreck of our ship, while two others foundered within sight of us.

From the fact that there was an earthquake at Concepcion, it is shown that the belt leading to the volcano, Coseguiana, was blocked; also the fact that the wave commenced 3 or 4 miles off shore, and that the land around Concepcion Bay was raised, is proof positive that this particular block commenced 3 or 4 miles off shore and continued in under Concepcion Bay. The block was too long for the gases to force, so they did the usual thing, worked around it. This means the bed of the ocean was raised over the new forging and the land after it had passed from under the ocean. The probability is that under Concepcion Bay the belt was only partially blocked and that, to some extent, the old belt was utilized. Unquestionably this was only one of several blocks, connected with the various outlets from the Chamber. The over-compressions of the Chamber probably blocked them all.

The area affected in this case was a large one, and varying phenomena appeared at various spots. Alterations were made in Santa Maria Island, 35 miles from Concepcion, and at Juan Fernandez Island, 360 miles from Concepcion, and at Concepcion itself. The prime cause of it all was without doubt that the outlets from the chamber below became blocked, the gases became over-compressed and forced either the old outlets or opened up new ones.

That the chamber has several outlets is shown by the varied volcanoes going into action at the same time. Concorado, in the south, has always had connection with this chamber via the submarine belt shown leading to this volcano. Coseguiana also is in communication with the chamber, by another submarine belt which passes under Santa Maria Island, and a third leads from the chamber to Acongagua, passing underneath Juan Fernandez Island. As I have shown in my cross-sections of the earth's primary rock, all chambers have a mutiplicity of fissures leading into them, also out of them. The gases follow the fissures in the rocks. Some fissures lead one way, some others; some end up in one belt, others in a totally different belt; so that looking at the phenomena from all viewpoints, it seems unquestionable but that this great chamber was primarily responsible.

Darwin relates that "before the first tidal wave came along, the waters receded abnormally along the shores." This is a regulation proceeding, and usual when an emersion, or the raising of the bottom of the ocean, takes place near the shore-line. Darwin's notes bring vividly to my mind a similar phenomenon which I witnessed in the Malay Islands. I was seated on a cliff, about 100 feet above sea level, when I was severely shaken up by an earthquake in close proximity somewhere. On looking out over the sea, about 6 or 8 miles off, the sea was rising like a great hump. As this hump went up, the water receded along the shore, then a small rocky island pierced the hump of water. As it came up the waters rolled off from it in great circular waves without crests, one following another. There were probably four or five; I did not count, but the first was by far the largest. When this wave reached the shore it spent itself against the rocks; the balance of the wave, no doubt, went on out to sea until it equalized in the waters. Being so far above the wave I could not estimate its height. Darwin says: "The most remarkable effect of the earthquake was the permanent elevation of the land." Probably, to be more correct, we should speak of it as the cause. "There can be no doubt but what the land around the Bay of Concepcion was upraised 2 or 3 feet."

Darwin has omitted a very important detail by not saying whether the land beyond the area of the quake was raised or not, and whether the depths of the ocean were increased or reduced off Concepcion.

I know of two actual submarine chamber blowouts during the past 50 years. In one case the bed of the ocean was lowered 5,000 feet. Unfortunately, those taking the soundings did not ascertain the area lowered.

In 1751, earthquakes occurred at Juan Fernandez Island, Concepcion and Chiloe Island, 340 miles to the south, all at the same time. No shocks were felt between Concepcion and Chiloe. Two volcanoes at the back of Chiloe went into action, Concorado and Uanteles.

In 1752, ten months afterwards, this phenomenon was repeated.

In 1923 the phenomenon was again repeated in all details. It became current at the time that Easter Island, with its great treasures of the Motherland, had gone down and been submerged.

Thus we have four duplications of this phenomenon:
1751, 1752, 1835, and *1923.*

Some day this old chamber will blow out, and then there will be some great earthquake activity until the gases below work their way into some of the belts.

CHAPTER XI

THE PACIFIC OCEAN

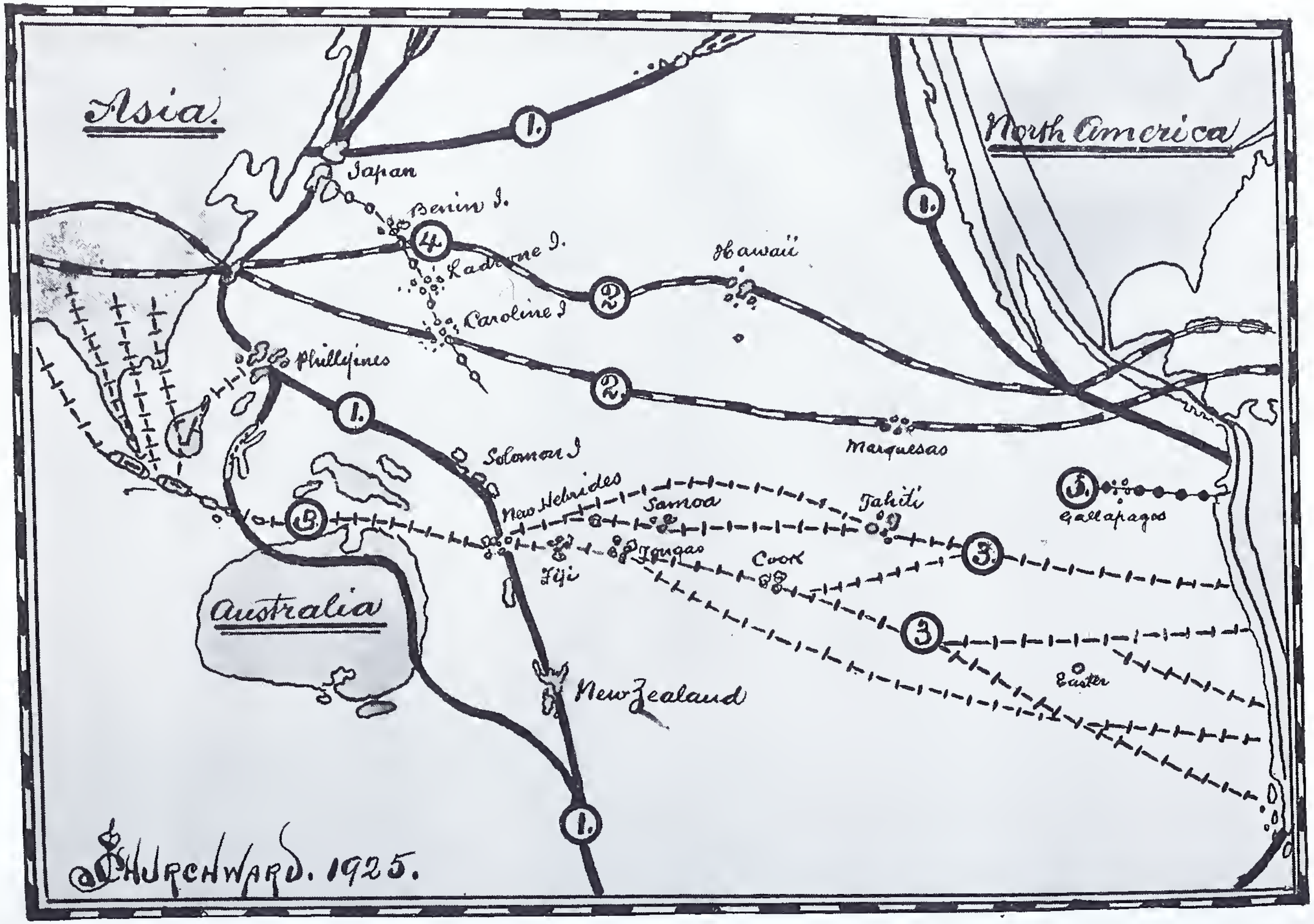
THE bed of the Pacific Ocean is literally honeycombed with gas belts, up and down, across and around. There are dozens of points where belts cross each other, and other dozens of points where belts split and come together, forming junctions. The volcanoes on the islands, active, quiescent and extinct, run into an immense number. It is safe to say that a great number which exist are unknown or unrecorded.

The gas belts of the Pacific Ocean may be divided into three distinct systems, with a few short ones which are independent of any of the big three. I have named the three systems, with their various ramifications:

The Pacific Circuit Belt.
The Great Central Belt (Pacific Division).
Malay-South Pacific Cross Belts.

THE PACIFIC CIRCUIT BELT

I left this belt at Cape Horn, South America, the southern end of the Andes Division. From this point it goes under the ocean in a southwesterly direction, and passes into the Antarctic Regions, where there are two volcanoes on it called Erebus (12,367 ft.) and Terror. From here it takes a northwesterly line. Just below New Zealand it splits, the western arm going on to Australia. It runs under the eastern and northern parts of Australia. On leaving Australia it passes under the small Malay islands east of Java, then under Celebes, and on to the Philippines, where it joins the Main Belt again. The Main Belt passes under New Zealand, at one place within a mile or two of the surface.



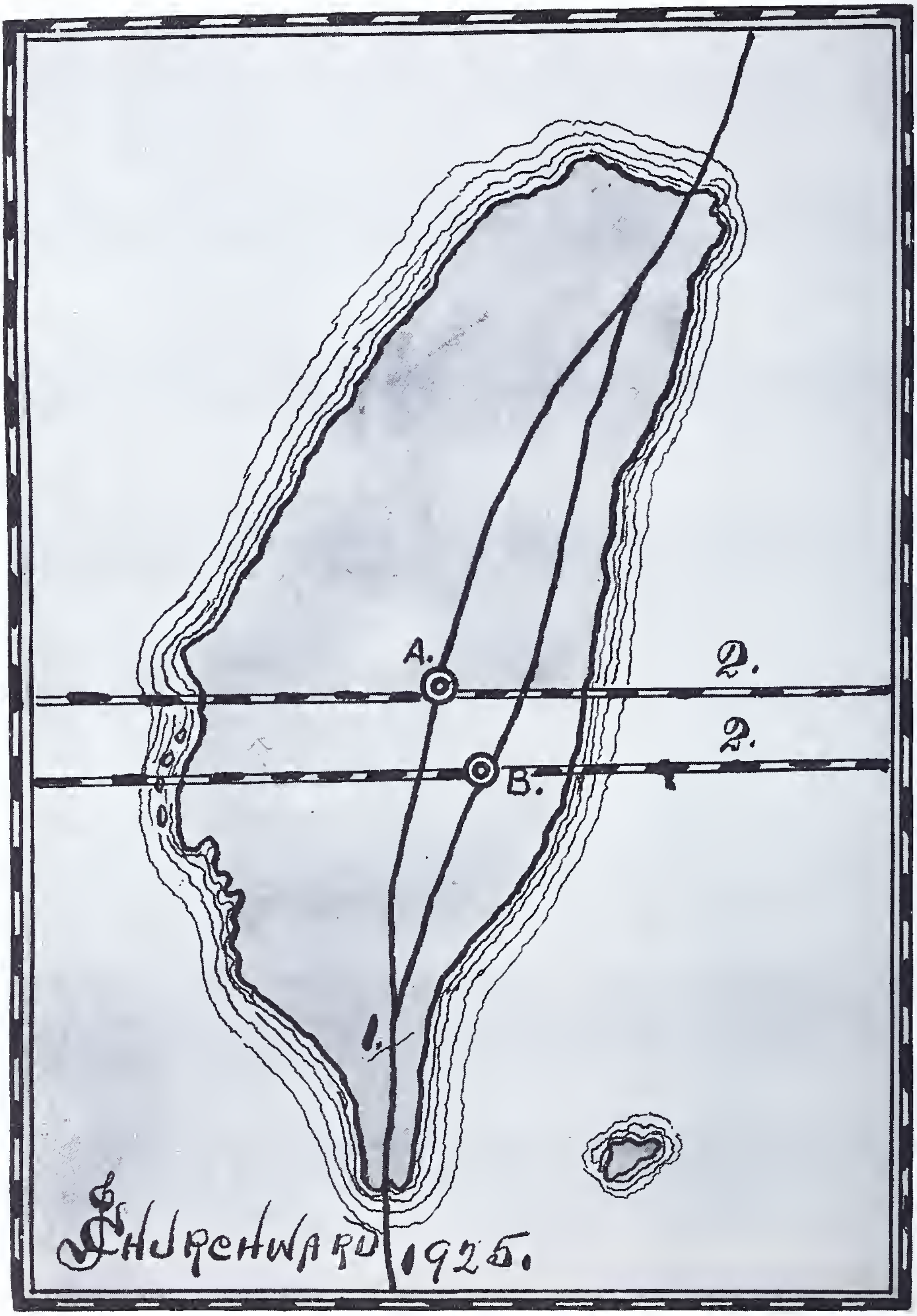
GAS BELTS OF THE PACIFIC OCEAN

1. Pacific Circuit Belt. 2. Great Central Belt. 3. Pacific Cross Belts. 4. Ladrone-Japanese Belt. 5. Galapagos Belt.

From New Zealand it passes under New Caledonia, and then the New Hebrides. Here it is twice crossed by the Malay-South Pacific Cross Belts. From the New Hebrides it passes on to the Philippines where it is joined by the branch which left it south of New Zealand. From the Philippines it proceeds to Formosa. In this neighborhood it is crossed by the two divisions of the Great Central Belt. From Formosa it passes on to Japan, where the ramifications and complications are so great I have devoted three maps to it. The nearest points to the surface which this belt reaches since leaving South America are the North Island of New Zealand that may well be looked upon as one of the great volcanic danger spots of the earth. The main branch or division of the Pacific Circuit Belt runs directly underneath it, and comes nearer to the surface than anywhere else along its whole length, except perhaps in Alaska.

MT. NGAURUHOE IN ERUPTION

Mt. Ngauruhoe is on this belt in the North Island. I consider this one of the most dangerous mountains on



THE ISLAND OF FORMOSA

1. Pacific Circuit Belt. 2. Great Central Belt.

earth. When I went over it in the late '70's I found the crater badly choked, and for nearly one-third of the distance down the sides of the mountain ejections were being made. When one lay flat on the ground and put an ear to the soil, rolling and rumbling of the fires underneath, within the mountain, could be plainly heard.

Under these conditions, it is easily seen that it was to be only a question of time before the top of the mountain would be blown off with the possibility that the whole mountain would be blown to pieces similar to the explosion, in the early 70's, of Tarawera, which was situated about 6 miles away in a northerly direction.

There are numerous spurs and loops to the belt in the North Island; therefore, earthquakes are possible for many, many miles around, and great destruction may occur at any time in this volcanic area.

FORMOSA

I will now proceed to add a few details to the Pacific Circuit Belt from the Malay Archipelago to Alaska in North America. I will first take the Island of Formosa. The Pacific Circuit Belt, 1 on the map, enters under the southern end of the island—a little inland the belt splits but joins again before leaving the island, thus forming a loop. On each of the arms of the loop there is one high volcanic mountain. On the eastern arm is Mt. Morrison—marked A on the map—which is a thousand feet higher than Fuji in Japan. On the western arm, and a little south of Mt. Morrison, is a high peak called Mt. Sylvia, marked B on the map.

Both divisions of the Great Central Belt (No. 2 on the map) pass under Formosa, thus twice crossing the Circuit Belt. Both go under the Circuit Belt.

From the northern end of Formosa to the southern end of Japan there is a string of small islands. The Circuit Belt passes under these, and here it comes nearer to the surface than the average depth of belts. From the Malays to Formosa, then on to Japan is one of the great Pacific submarine mountain ranges and on it are some volcanoes. I was over one once when it undertook to erupt. Our ship was no laggard or ashamed to make rapid pace to a cooler spot. Fish were killed by the ton, and covered the water.

The next point is in Japan, which will be spoken of hereafter. The volcanoes on this stretch of the belt are very numerous in New Zealand, New Caledonia, New Hebrides, The Philippines, Formosa (quiescent) and Japan. Japan is full of them.

THE GREAT CENTRAL BELT

The Great Central Belt leaves Asia in two parallels or divisions and passes out under the Pacific Ocean near Formosa. There is a crossing made by these two divisions, but I cannot say whether it is made in Asia or under Formosa. The northern division, after leaving Formosa, passes under the Mariana or Ladrone Islands, on which there are volcanoes, but whether these volcanoes belong to the Great Central Belt or to the Japanese-Ladrone Belt, which crosses it, I cannot say. From the Mariana Islands the Belt passes on to Hawaii, where it has volcanoes. From Hawaii it passes on to Central America, entering in Yucatan. Just before entering Central America it is crossed by two parallels of the Pacific Circuit Belt.

The southern division passes under the Carolines, where there are quiescent volcanoes, then under the Marquesas, where there are also volcanoes which are quiescent. From the Marquesas it passes on to Central America, entering under Honduras, and again it crosses two parallels of the Circuit Belt.

THE MALAY-SOUTHERN PACIFIC CROSS BELTS

This Belt or Belts, with its or their ramifications, may properly be called the Volcanic Stormy Petrel of the Southern Pacific, for no volcanic calamity south of the Equator in the Pacific Ocean occurs without this Belt being in some way responsible for it. It is utterly impossible to plot this belt on the map with any degree of accuracy, on account of the immense number of splits, loops and junctions. They are there by the dozen, but the Lord only knows their exact situations. Man does not, nor ever will.

This belt commences its formation by a series of little belts coming down through the Burma-Malay Peninsula, Cochin-China and Cambodia. The Main Belt appears to be formed from the finger which comes down under the sea west of the Malay Peninsula and enters Sumatra at its western end. It passes on under Java and several islands east of Java, then under the sea south of Papua to the New Hebrides; it crosses the Circuit Belt twice. The junctions of the fingers are first at east end of Sumatra, second Straits of Sunda, third in Java. There may be two in Java. From the time this belt commences at the west end of Sumatra all on through the line of islands to Papua it is one mass of volcanoes, among them some of the worst behaved in the world. The tragedies that have been recorded through the earthquakes and volcanic outbursts along this section of the belt can scarcely be duplicated in any part of the world. I look upon it as being the second most dangerous volcanic spot on earth, Japan being the first.

After the belt leaves the New Hebrides, and after making its first split, what do its ramifications embrace? What? I do not know, I know only that it is under every rocky group of islands to the east of the New Hebrides. Fiji, Tongas, Ninafou, Samoa, Tahiti, Cook, Easter, etc. Whatever its ramifications are, whatever splits, loops and junctions it makes, they all end in South America. I have traced six ends, and possibly seven, going into the western Belt of the Andes. There are scores of volcanoes on this belt, either active or quiescent.

THE LADRONE-JAPANESE BELT

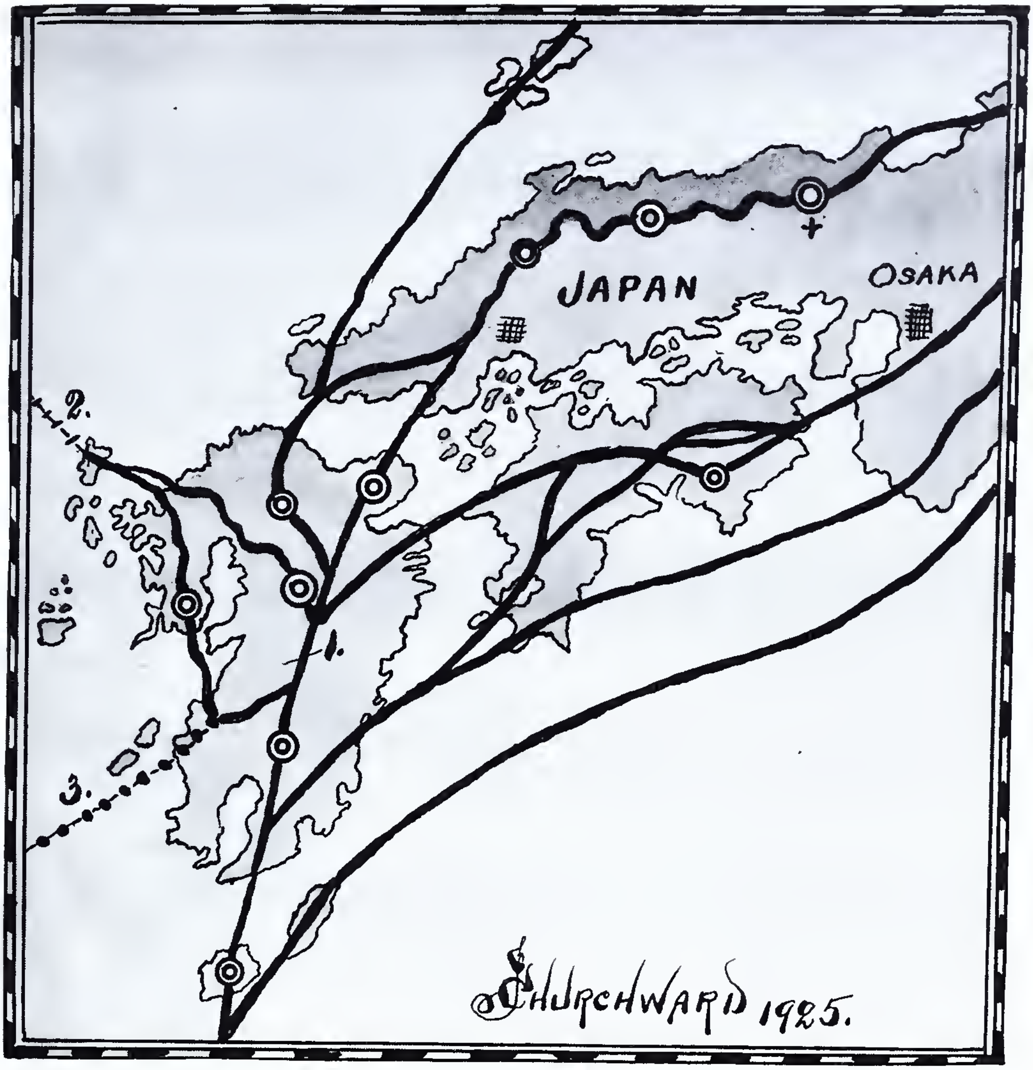
This little belt runs from the Carolines up through the Mariana and Benin Islands to Japan. What this belt lacks in length it makes up in devilishness. Many of Japan's worst earthquakes have been caused by this belt. There are quite a number of volcanoes along its route, both active and quiescent. Whether they all belong to this belt, or some to the Central Belt, I cannot say.

THE GALAPAGOS BELT

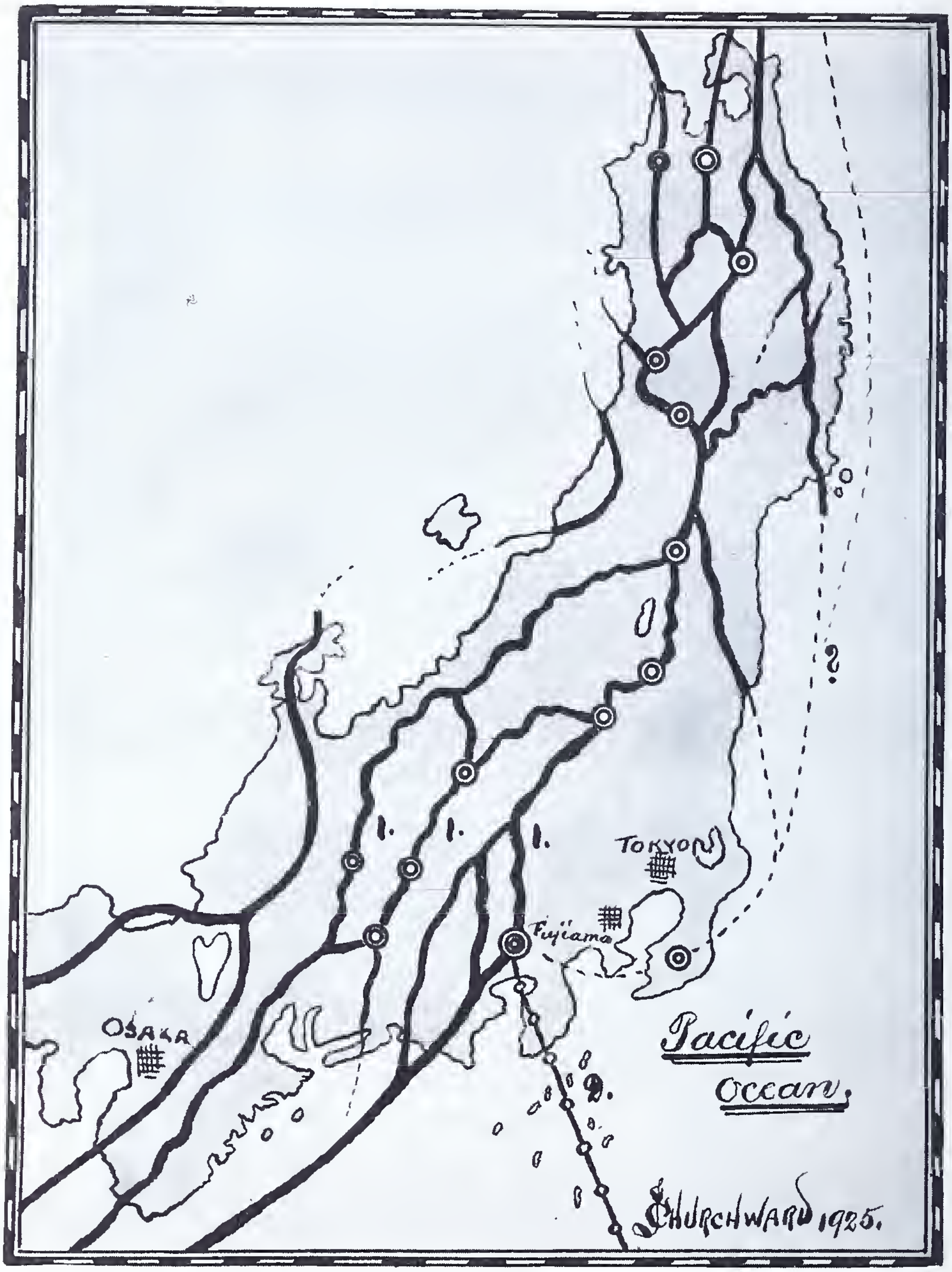
This little belt runs from about the Galapagos Islands to Ecuador, South America, on the equator. The belt under the Galapagos Islands is very close to the surface. There is an immense number of small volcanoes on these islands, showing the close proximity of the belt to the earth's surface. The two largest volcanoes are on Albemarle Island and Marlborough Island.

Darwin, in his "Voyage Around the World," says, "The Galapagos Islands are all volcanic rock. Some have high peaks of 3,000 to 4,000 feet in altitude, some have immense craters.

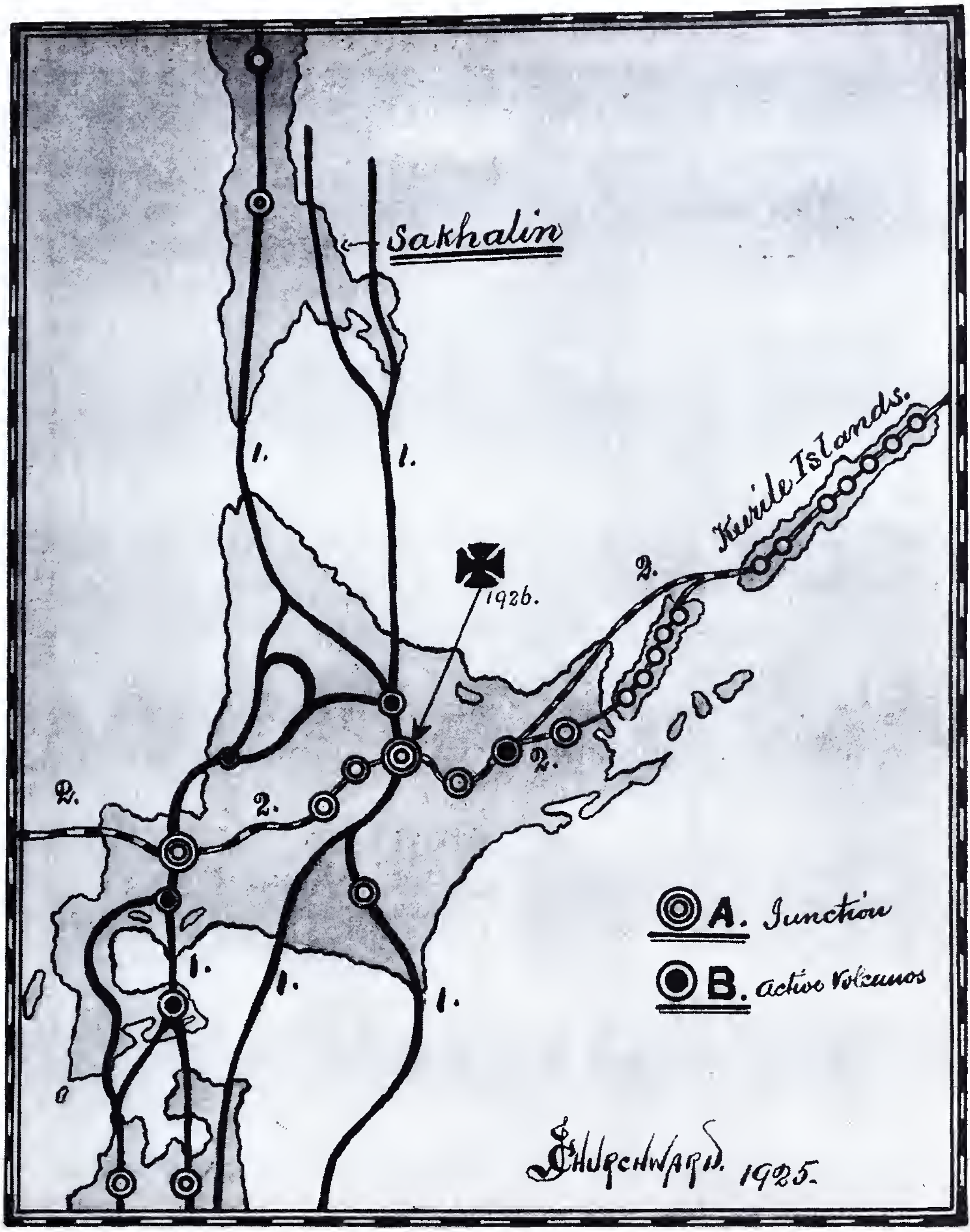
"Altogether, big and small, there are nearly 2,000 craters on these islands."



JAPAN (SECTION 1–SOUTHERN)
1. Pacific Circuit Belt. 2. Korean Spur. 3. Cochin-China Spur.



JAPAN (SECTION 2–CENTRAL)
1. Pacific Circuit Belt. 2. Japanese-Ladrone Belt



JAPAN (SECTION 3—NORTH)

1. Pacific Circuit Belt. 2. A Major Belt from Central Asia.

Unquestionably these islands were thrown up by the forming belt. I am under the impression that originally the Galapagos Belt and the Japanese-Ladrone Belt were one. Subsequently a cave-in took place along the center, and the two ends became two belts.

JAPAN

Japan is the greatest volcanic danger spot on the earth. The volcanic conditions of Japan can better be imagined than described. Nowhere else on earth, in the same space, are there so many gas belt crossings and gas belt junctions. No less than five great belts either enter or pass through Japan.

First: *The Great Pacific Circuit Belt,* marked 1 on all three of the sectional maps. This belt assumes all sorts of ramifications going through Japan: parallels, splits, spurs, junctions and even crossings, all junctions, splits, and crossings forming an extra menace. The most notable volcano on this belt is the great Fuji, which is also a beautiful artistically-formed mountain. I have shown a number of volcanic mountains on each sectional map. Some of these are active volcanoes, some are quiescent craters, while others have no craters, but might be turned into volcanoes under certain conditions which might come about any day.

On Map 1 is shown, on the southwest corner and marked 3, a belt which comes in from Cochin-China, and joins the Circuit Belt. This I have designated *the Cochin-China Spur Belt.*

In the center of the western side of the map, another belt is shown as coming in and joining the Circuit Belt. This I have called the *Korea Spur Belt.*

A little above the center, on the east side of the map, is shown the City of Osaka, and northwesterly of this city is the Volcano, Yakegatake, which kicked up quite a rumpus a short time ago. This volcano is marked with a cross.

In sectional map 2 is shown the celebrated volcano mountain, Fuji, and coming into it from the southeast a belt, marked 2, on this map. This is the *Ladrone-Japanese Belt,* one of the most devilish and dangerous belts that enter Japan. It has all the qualifications for being one of the worst kind. It runs under the ocean, it is near the surface, and it is exceedingly active. Some of Japan's greatest volcanic tragedies have been caused through this belt.

My third sectional map is devoted to the northern island, Hokkaido. The volcanic conditions here are more menacing than on any other of the Japanese Islands. The Pacific Circuit Belt enters it as three parallels and leaves it as two. There are no less than 6 splits and 7 junctions, every one a menace; but, the most dangerous menace is the two crossings of the *Eastern Asiatic Belt,* which leaves the mainland, crosses under the straits, passes directly under Hokkaido from west to east, then out under the Kurile Islands, where the volcanoes are as thick as bees entering a hive, and then on to the Aleutian Islands and Alaska. On this map I have numbered this belt 2. The two greatest danger-spots I have marked with a treble circle B, and the junction with a black disc surrounded by a circle A. From all indications it would seem that No. 2 Belt passes over No. 1, especially shown in the Kurile Islands.

On May 25th, 1926, a tragedy happened at the point where I have shown a crossing also marked with a Maltese cross. This volcano had long been thought extinct, but just see what it did after waiting 100 years. "There were three explosions of the volcano yesterday, each carrying huge quantities of rock and lava and causing numerous landslides. One village is reported to have been wiped out by a flood of water and lava, 200 of the inhabitants being buried in the débris."

This occurred in the middle of a big island, and no surrounding land was affected, and yet scientists tell you that earthquakes are due to slippage at faults. Earthquakes are always followed by eruptions of fire, lava, rocks and sometimes water, also poisonous volcanic fumes. Does the slipping of a couple of rocks hurl masses of rocks in the air accompanied by fire, smoke and lava? Directly we shall see our geologists crying and wiping their eyes because there is no Santa Claus.

Some of the Great Volcanic Tragedies of Japan

History records that in the year 1783, *Asamayama,* a volcanic mountain situated on the main island, was blown to pieces. We all remember well the terrible tragedy of 1923, when Tokyo and Yokohama were literally shaken to the ground with "a loss of 156,984 lives and property damage of 5,506,000,000 yen." This is the Japanese official report.

Scientists, writing about this tragedy at the time, said: "The rocks under the sea opened up fissures to the fires of the underneath; when the ocean's waters reached the fires they were turned into steam, and that it was the steam, causing the land to rock and to roll on the shore, which shook the houses down." Can anyone conceive of a greater absurdity or a more consummate piece of twaddle being placed before the public, expecting them to swallow such nonsense. Let us do a little analysis of this absurd assertion. Every schoolboy knows that forces follow the line of least resistance. If the fires of the underneath split the rocks, forming fissures to the sea through which the waters flowed towards the fires, then the line of least resistance would be back through the fissures, which would react on the waters above, killing the lobsters no doubt, but in no way affecting the adjoining land. Instead of this, scientists put forward the raw proposition that the steam objected to the open fissures and selected solid rocks, some of them 30 miles away; that it lifted, tumbled and rolled these rocks, billions upon billions of tons of them, 30 miles inland from the point of trouble under the ocean. This steam proposition gives the glacial ice proposition a back seat.

Another scientist, writing on the subject at the time, said the earthquake was caused by a slip at a well-known geological fault that ran along the western Pacific, and part of which was off Japan. Now let's see what phenomena were reported, and how a slip could produce them.

"An island which existed off Yokohama was submerged and near it another island emerged at the same time."

"The bottom of the sea was *raised* around Yokohama so that the depth of water was reduced."

"During the earthquake a huge cataclysmic wave of water rolled in over the adjoining low lands."

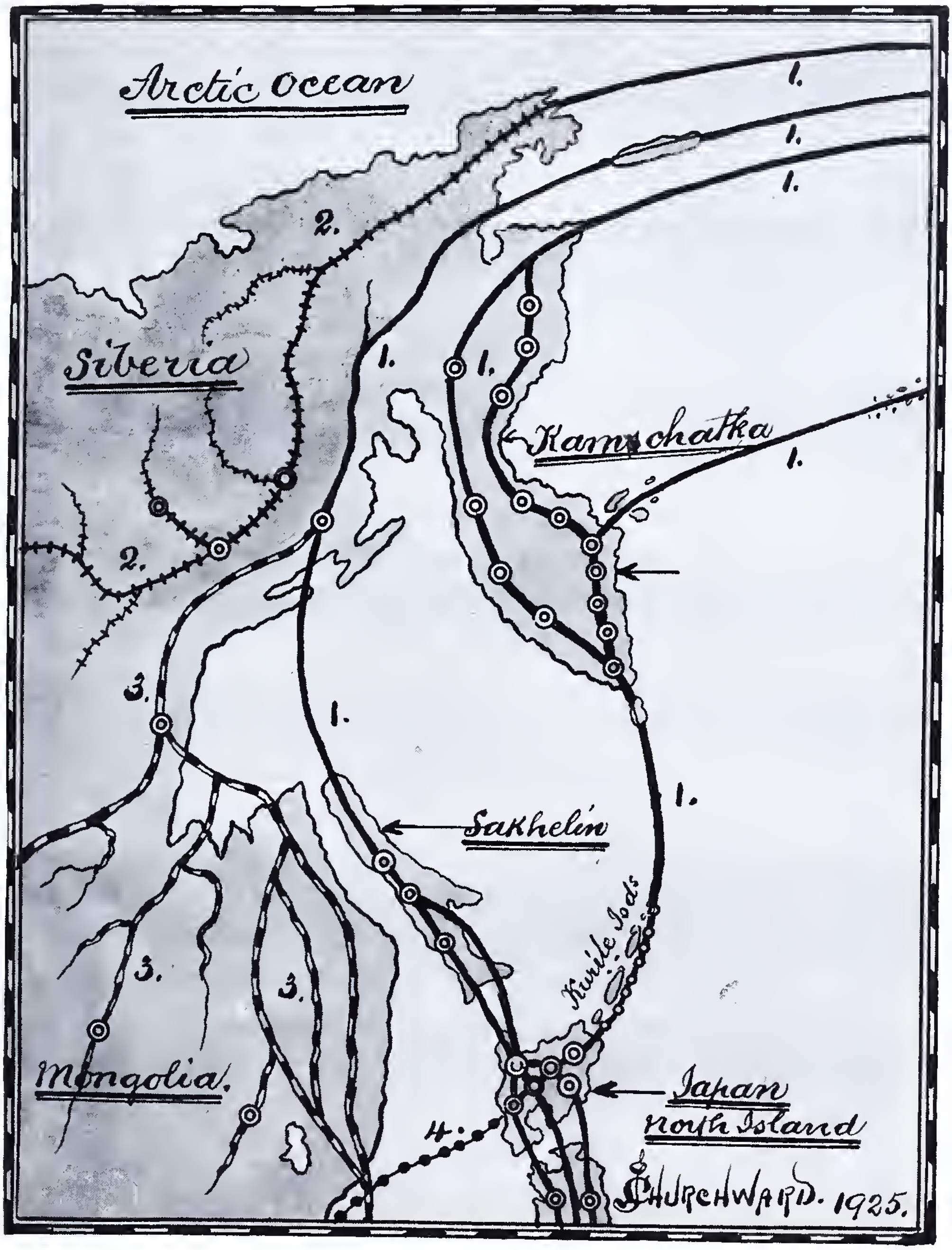
Here are *three official facts.*

If there was a slippage at this most wonderful geological fault, it meant that at that point the bed of the ocean must follow the slipping rock beneath, the water must follow the bed, so that a great cavity must be created in the water. Was there such a cavity? No! On the contrary, a great cataclysmic wave was sent rolling in to the shore. When this mythical slip took place, did the depth of the ocean increase? No! For we find that it was raised around Yokohama. Where did the island go that was submerged? And why did another island emerge nearby? The dropping of the ocean's bed through a geological slip does not send up islands as it goes down. All these phenomena tear into shreds the deductions of our scientists regarding a slip or steam.

The Japanese Ladrone Belt comes up from the islands, and enters Japan under Yokohama; it then proceeds on to the volcano, Fujiyama, and through it discharges the gases from the upper end of the belt.

The first phenomenon noted is an island rising out of the sea some miles off Yokohama, and at the same time another going down nearly alongside of it. From this it is evident that the belt was blocked just beyond the submerged island. The gases could not force it, so they forged around, and in doing this the new island was emerged and the old island fell back into the old belt. This is not an only instance, for a similar phenomenon occurred some years ago in the New Hebrides. From this island on, the belt was more or less choked to a point between Yokohama and Fujiyama, and forgings had to be done by the gases to this point. In forging to make a new passage or belt, the ocean bed was raised around Yokohama, and the land all along the route to where the old belt was found by the gases rolled and heaved in the usual manner. As soon as the over-compressed gases got into the old belt near Fujiyama, a volcano went into action and then the earthquake ceased. One phenomenon only now requires to be accounted for, the great cataclysmic wave which swept in over the lowlands. When the new island was coming up it displaced the water above, which took the form of a huge rolling wave, as heretofore explained.

That the block was in the Japanese-Ladrone Belt, and not in the Pacific Circuit Belt, is certain; because, had the block been in the Circuit Belt which runs all the way under the land in Japan, there could have been no disturbance of the ocean's bed around Yokohama, nor could



NORTH-WEST CORNER OF THE PACIFIC

1. Pacific Circuit Belt.
2. Major Belt from Central Asia.
3. Major Belts from Eastern Asia.
4. Major Belts from Eastern Asia.

there have been a cataclysmic wave. During May, 1925, another disastrous earthquake occurred on the western parallel of the Circuit Belt, in the southern part of the main island. This was a belt block, pure and simple, some few miles away from the crater. "The quake centered at Kinosake, which is celebrated for its hot springs, and at Toyo Oka. At Kinosake the ground opened up in fissures from which issued sulphurous volcanic fumes, overcoming many people. Yakegatake, the volcano, shortly afterwards went into action, and the earthquakes ceased." Yakegatake is marked, in Sectional Map of Japan, No. 1.

N. W. PACIFIC AND N. E. ASIA

From Japan the Pacific Circuit Belt, marked 1 on the map, passes northward in two parallels. The eastern parallel leaves via the Kurile Islands and passes on to Kamchatka, where it enters under the southern point of the peninsula. The Kurile Islands are small, but like their owners, what they lack in size they make up in activity. At the time of this writing, my information is that 8 out of the great number of their volcanoes are in action.

After the belt enters under Kamchatka it splits into two arms which meet again at the head of the peninsula, thus forming an irregular loop. About one-third of the way up on the eastern arm the belt splits again, one arm going east to the Aleutian Islands and Southern Alaska, the other part continuing on to complete the loop.

Kamchatka is in an unenviable volcanic state, the peninsula being simply a mass of volcanic peaks with a vast number of volcanoes among them, either active or quiescent. Quite often Kamchatka is shaken from end to end by earthquakes. Lately the active volcanoes have been mostly on the eastern arm of the loop, among the names given me as being in action are: Izatchinski, Peraretnaia, Kromontski, Shiveti and Klintsher.

After the Kamchatkan loop has been completed, the belt swings easterly, goes under the Bering Straits, and into Alaska. The western parallel leaves Japan and goes to Shaghelin, passes under this island, then under the sea in a northerly direction; it then runs nearly parallel to the Kamchatka belt, goes under the Bering Straits, into Alaska.

A third belt crosses the straits north of the last mentioned and enters Alaska. Thus there are four parallels running into Alaska from Asia.

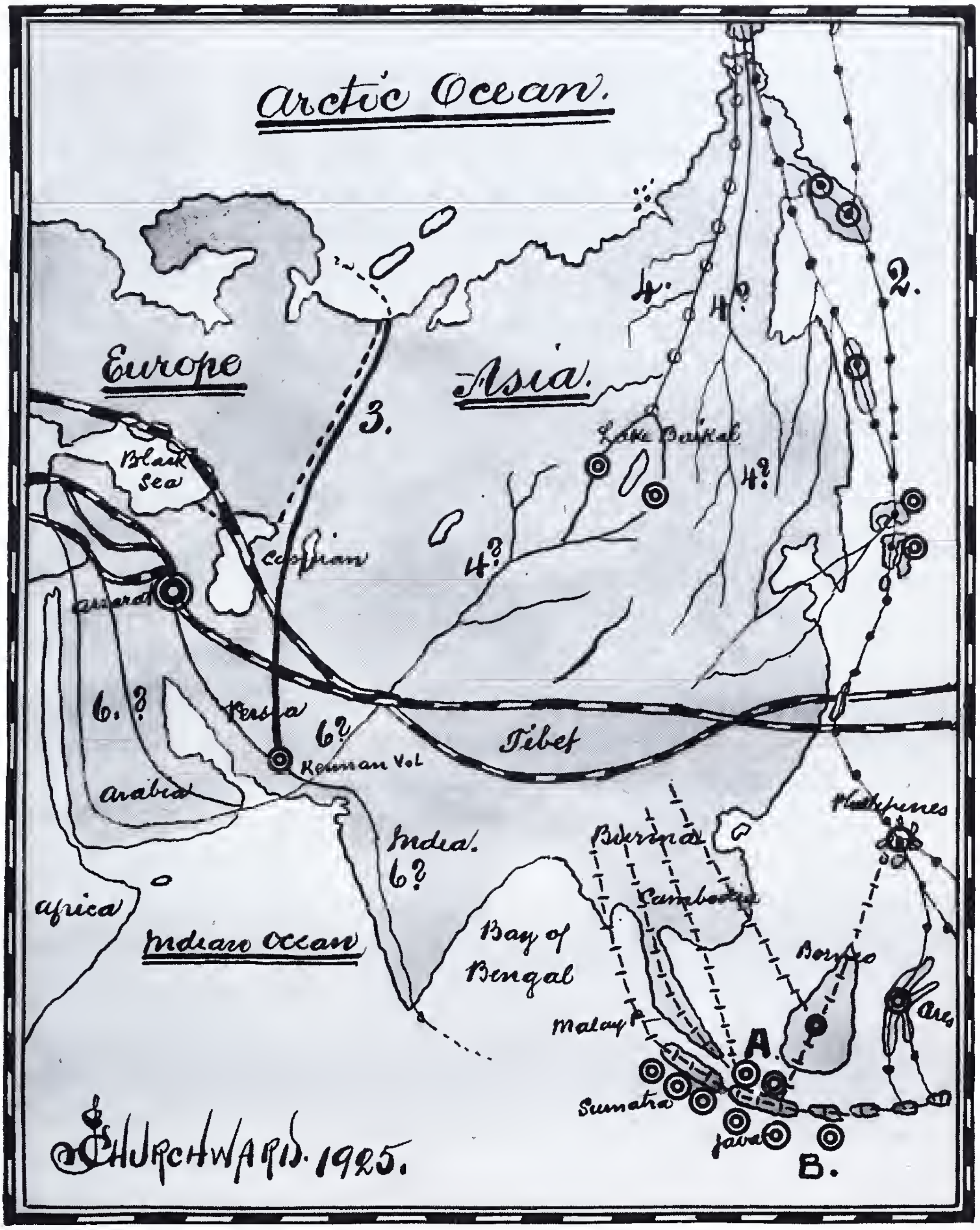
On crossing the Bering Straits from Asia into Alaska, I have made a complete circle of the Pacific Ocean, showing the course and general character of the Great Pacific Circuit Belt along its entire route. I have also noted the other belts which affect the Pacific Ocean. The Great Central Belt. The Japanese-Ladrone Belt, the Galapagos Belt and the South-Pacific Cross Belts. I noted the Malay ends of this belt, and shall give further details about the Malay belts later on.

Apparently the whole of the Eastern Asiatic belts pour their gases into the Circuit Belt. No. 2, on the map, starts from about Lake Baikal in Central Asia. No. 3 is purely an eastern Asiatic Belt. Its southern origin I have been unable to trace; it may run into Belt No. 4 in Cochin China. I have been unable to obtain much satisfactory information about Belts Nos. 2, 3, and 4. I know only their ultimate ending, without knowing what goes before.

On No. 2 I have one record only of a continuous series of quakes from Lake Baikal to Alaska and the Rocky Mountains. This I do not place much value on because I have no duplications to confirm the first.

I purposely commenced the earth's great gas belts with the great Pacific Circuit Belt for two reasons, the first being that it is the greatest and most active gas belt ever forged, affording over and over again corroborative evidence by the duplications of phenomena, in some cases six and seven times repeated during 50 years of tabulating.

The various formations with geological and volcanic phenomena give absolute proofs that mountains were never raised by contractions of the earth's crust in cooling, but that they have been raised by the volcanic gases. The peculiar bottom of the Pacific Ocean with its almost immeasurable holes is corroborative proof, if proof is necessary.



ASIA AND THE MALAYS

CHAPTER XII

ASIA AND THE MALAYS

THIS IS merely a key map, and purely conventional. It could not be anything else, with the very slight knowledge that we have about the whole of the Central and Eastern parts of Asia. No one knows what the actual volcanic conditions are in either Central or Eastern Asia, and very little about Western Asia. Beyond the Hindu and Malay Peninsulas there is nothing absolutely definite known. Having personally made a study around the neighborhood of Lake Baikal, and the Lena Watershed, I am in a position to state a few facts; a few only, because my study extended only a few weeks, and volcanic conditions was not the object of my principal study.

The Asiatic Gas Belts are many and very complicated. This is one of the facts that I ascertained. It will take a number of geologists several years of careful study and observation to enable one to plot them accurately on the map.

In my map I have assumed that certain belts are independent of each other, and that others run into each other. These may be found to be erroneous assumptions in both cases, when the facts are known.

I have always found it extremely difficult to get any information at all from Central and Eastern Asia, and more often than otherwise, I have subsequently found the information given to be erroneous.

The Great Central Gas Belt, marked No. 1 on map, comes into Asia from Europe in two parallels. The northern parallel goes from the Balkans across the Crimea, then under the Caucasian Mountains under the Caspian Sea into Persia. The southern parallel comes into Asia Minor from under the sea and southern Greece. In Greece it splits, the branch going down into western Arabia. Between Greece and Asia Minor it splits again, the branch goes in under Asia Minor and joins the main belt again at Erzerum, thus forming a loop. It passes on under Mt. Ararat and Tabriz and proceeds easterly along the foot of the Caspian Sea. In Persia it runs close to, and parallel with, the northern parallel. They run along close together until they arrive at the Hindu Koosh, where they cross. From the Hindu Koosh, the northern parallel now becomes the southern parallel, takes a big southerly curve and comes back and re-crosses the other parallel in the Ebling Mountains. There are a great number of spurs, loops and junctions on this belt going through Asia. I have plotted the main belt only.

There are, in addition to crossing itself twice, four other crossings by other belts. Although this range is a mass of towering peaks, I know of no actual volcanoes on it. Both parallels are deep down; one, I think, is the deepest belt in the world for a stretch of 1,000 miles. I refer to the southern arm of the loop, from the Hindu Koosh to the Ebling Mountains.

The Great Central Belt, marked No. 2 on the map, has already been described in the Gas Belts of the Pacific Ocean.

The Ural Mountain Belt, marked No. 3 on the map, is one of the best defined belts in the world. It crosses both divisions of the Central Belt to the southwest of the Caspian Sea, then continues on through Persia to a belt which starts from about Mt. Ararat, marked No. 6 on the map. This belt, the Ural Belt joins and at the junction there is a volcano at Kerman, the Kerman Volcano. The Ural Belt's gases are discharged through this volcano.

Belt or Belts, No. 4, are situated in Central and Eastern

Asia. I have traced only a part of one from the volcanoes at Lake Baikal to the Bering Straits. My knowledge is too hazy to say anything about the belts marked 4, with a query mark. Belts No. 5 are the main lines of the net work of belts that permeate the Malay Archipelago and eventually work into the Southern Pacific Cross Belts. They are all near the surface and. extremely active. On account of the numerous crossings and junctions, I place this area as the second most dangerous volcanic area on earth. The islands are literally filled with volcanic peaks, earthquakes are frequent, and outbursts very common, many with disastrous results. Krakatoa, which was blown to pieces in 1888, is marked A in the Straits of Sunda, between Sumatra and Java.

Mount Tomboto, in Java, is marked B on the map. Here, in 1851, between 50,000 and 60,000 people lost their lives during one of its outbursts.

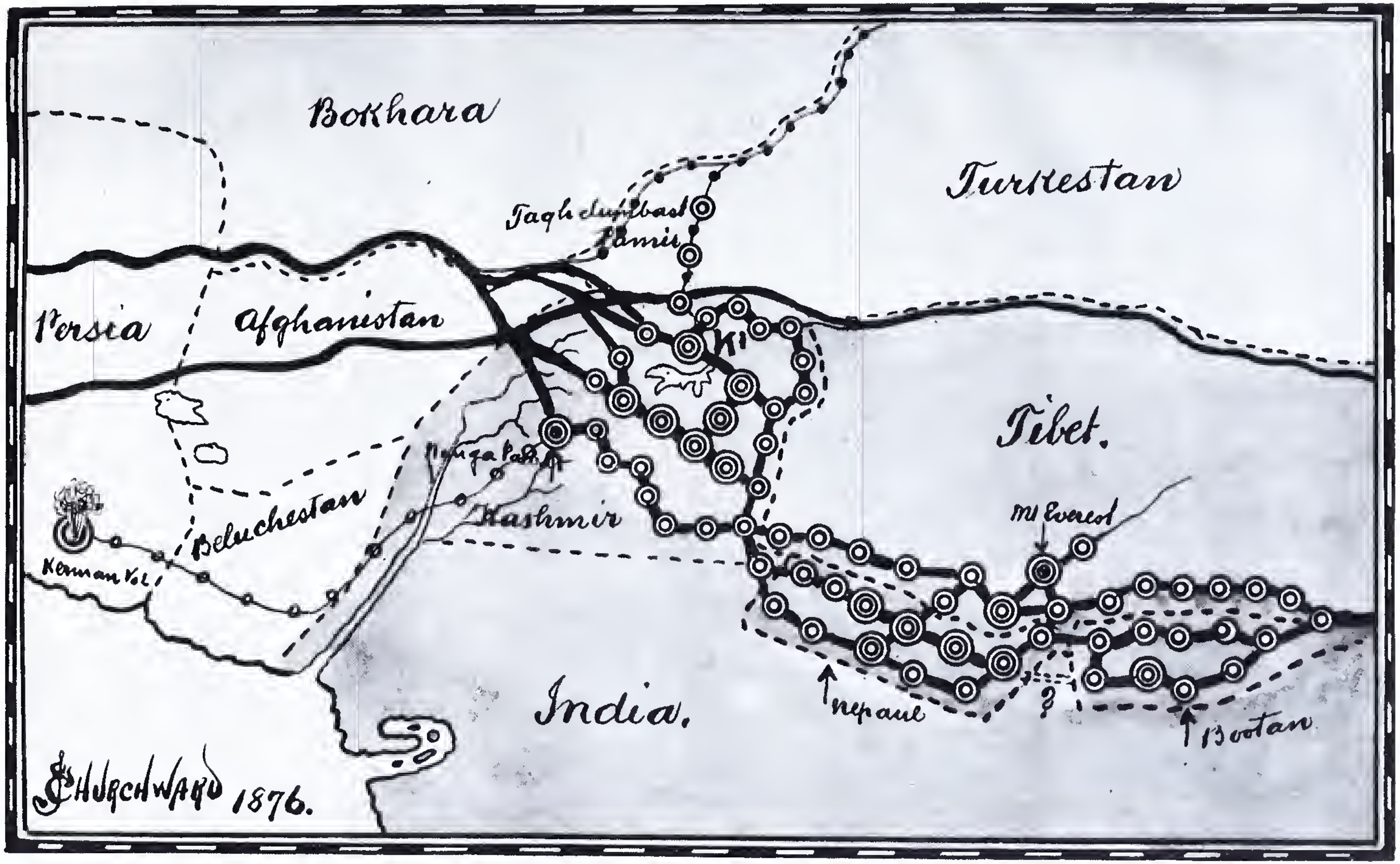
Belt No. 6 I cannot say much about. I have only defined those sections, bearing crosses, in Asia Minor and from Mt. Ararat to Kerman.

The Himalayas

The Himalayan Mountains are situated along the northern boundary of India, nearly in the center of Asia. India lies to the south of them, and Tibet to the North. They were raised by the Great Central Gas Belt.

In the Himalayan Mountains, nature put forth her supreme effort for the production of grandeur. The volcanic gases were called upon to do their most stupendous work, and nowhere else on the face of the earth is such magnificence shown.

The Himalayas proper commence in the west, at the Hindu Koosh in Afghanistan. In gas belts we work beneath



THE HIMALAYAS

the ground, where vision cannot penetrate. Now let us come up from the underworld and stand upon the surface of the land to see what they have accomplished. The most glorious, the most stupendous, and the most sublime example that is to be met with in any part of the earth, the Himalayas were the coping-stone of the last great command, as related in the late Naacal writings:—"And now let the forces of the nether world raise the land into mountains with roads in them for the fires to travel to the doors of their exit, so that hereafter, the land shall not be destroyed again with all thereon."[1]

A branch or range of mountains leaves the Hindu Koosh and runs in an irregular northeasterly direction. I am under the impression that, after various windings in Central Asia, this belt finally reaches Lake Baikal. Near the Koosh it has two high mountains on it, Tagharma, 25,000 feet, and Mustagh Alta, 22,500 feet, with several others of lesser altitudes.

From the Hindu Koosh, where the northern parallel crosses and becomes the southern, the Himalayas commence, and they are all on the new southern parallel. This southern parallel is the true Himalayan Ranges. These ranges assume the form of a bent bow with the two ends tipped northerly. This bow is over 1,000 miles long. On it are more than a dozen of the highest peaks in the world, and scores equaling the highest of the Andes in South America. Although immensely high peaks follow each other in close proximity throughout the ranges, there are two groups that stand out prominently from all others. These two groups contain the world's highest peaks. The western group lies at the north of Kashmir, and the eastern group in Nepal and the adjoining territory of Tibet.

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[1] "Forces" may be read as "fiery gases," and "roads" may be read as "passageways."

The giants of the western group to the north of Kashmir are:

	Altitude
K2	28,278 ft.
Gusherbrum Peaks—four, each over	26,000 ft.
Masherbrum	25,600 ft.
With numerous other peaks ranging from	15,000 to 25,000 ft.

Younghusband, in describing his first sight of these towering monuments, says: "And beyond? What did I see? There, arrayed before me across the valley, was a glistening line of splendid peaks, all radiant in the sunshine, their summits white with the purest snow, their flanks stupendous cliffs, and bearing away the rich abundance of their snowy covering were vast glaciers rolling in the valley below."

Between the great K2 and the Gusherbrum and the Masherbrum groups lies the greatest glacier in the world, away from Polar regions, which is known as *The Great Baltoro Glacier,* 36 miles long, 2 miles wide and 300 feet thick. Younghusband's description of the Baltoro Glacier is:

"The glacier itself as I came to look into it was a gorgeous sight. What I took to be walls of hard rock when I came close to them turned out to be walls of transparent dark green ice, and there were the most fantastic caverns, with floor, walls and roof all of ice, and with delicate icicles hanging from the roof and fringing the entrance.

"Where I had reached no white man had ever reached before. And there before me were peaks of 26,000 feet and in one case over 28,000 feet, rising above a valley bottom only 12,000 feet above sea-level." When Younghusband penned these words, he did not dream that these stupendous mountains were once fertile plains and the ancient home of the Aryan races. They occupied this land, not millions of years ago, but less than 20,000 years ago.

Among the people living around and among these mountains are numerous legends about there once being great fertile plains, where these mountains are now piercing the skies at from 15,000 to over 28,000 feet. The legends say this area was thickly populated but that most of the people perished from earthquakes and falling rocks as the mountains went up. It is stated that there are written records about the elevation of the Himalayas and the destruction of the people, in some of the old Chinese Tao Temples. When I was in the Orient, it was more than one's life was worth to attempt to enter these temples to get a sight of these old writings.

Detached and away some distance from K2 group, stands the most symmetrical and imposing mountain in the world, raising its towering head 26,600 feet above the level of the sea, from out of a *plain* which is only 3,000 feet above sea level.

Nanga Parbat is its name. It is in no way second to the Japanese prize beauty, Fujiyama. No spot on earth can give one the idea of what height means like looking at Nanga Parbat from the plain.

Leaving Nanga Parbat, and travelling east about 700 miles, we reach the eastern group of giants with Mt. Everest, 29,902 feet, heading the list.

All along this range of 700 miles high peaks, averaging from 16,000 feet up to 23,000 feet, followed each other closely.

The giants of the eastern group are:

Mount Everest	29,902 feet; in Tibet
Peringla	26,200 feet; in Tibet
Kinchinjunga	28,177 feet; in Nepal
Cogio Than	26,305 feet; in Nepal

Batia	27,599 feet; in Nepal
Chominino	27,363 feet; in Nepal
Dhanlagiri	26,828 feet; in Nepal

Here we have seven peaks, all within sight of each other, all of which are over 3,000 feet higher than the highest South American peak, Acongagua in Chile, and two over 6,000 feet higher than Acongagua.

On reading a writer's impressions upon his first sight of this group from Darjeeling, it impressed me, as personally I know the scene well. First impressions are always the most accurate, as the edge wears off after a long acquaintance. It is the old saying "familiarity breeds contempt." Not that a long acquaintance with these mountains could ever breed contempt, but the appreciation of their greatness wears off; they become a common sight.

"On sunrise on Sunday morning I walked around the Mall and up to the observatory, which commands a full view of the splendid scenery. Never did I fully understand the force of the expression 'height and depth' as now. I had before me the giant mountains, and I could look down into the depths, deeper and deeper still, 6,000 feet into the forest clad ravine of the Grand Ranjit River, and then slowly raise my eyes higher and higher through the succession of ridges and foliage and rocks till they reached the eternal snows, and still farther up to the peaks soaring into the sky. 'From the lowest point which the eye can reach in the Ranjit Valley to the highest peak to be seen from this point, Kinchinjunga, the vertical height is not less than 5 miles. More than 12 peaks can be counted which rise above 20,000 feet."

The Asia Minor Southern Belt or Belts

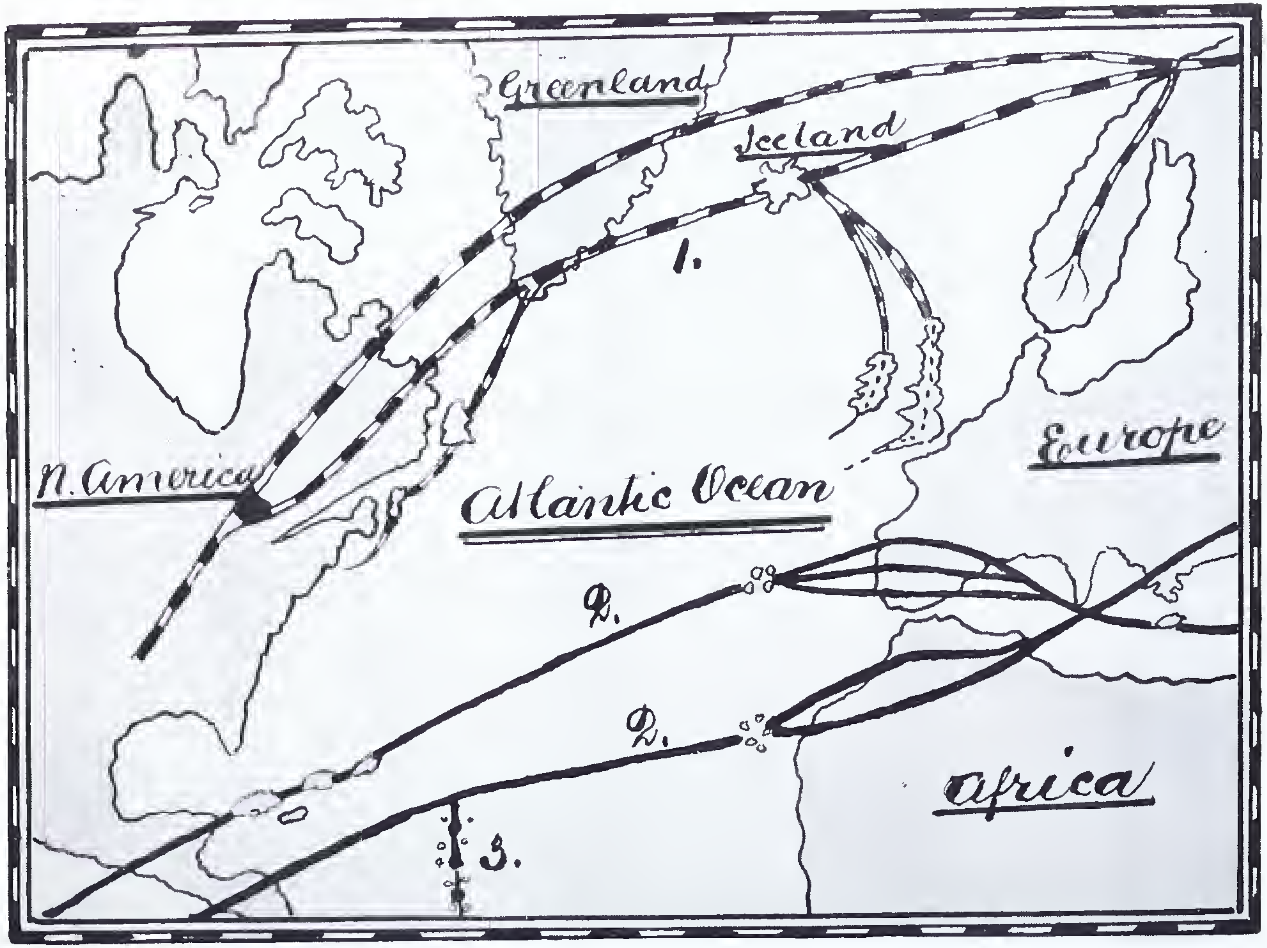
A belt comes down about Smyrna in Asia Minor to the western part of Persia to Kerman, then apparently follows on through the western part of India. There are apparently two splits in the northern end of this belt, one branch running down the western side of Arabia, the other on the eastern side of Arabia. At the southeast corner of Arabia they join and cross the straits into Beluchistan and then into India, passing under the great mountain, Manga Parbit, or east of it, then it gets lost somewhere in the Koosh. I believe the belt which I have shown starting from the Koosh to Lake Baikal is a continuation of it. The belts are so thick, with no nearby volcanoes, that it becomes impossible to say which belt a quake is on, except the lateral Cashnur Belts.

Referring back to the belt through Central Asia, after leaving the Koosh this belt enjoys an immense number of ramifications, none of which I can say anything about until we come to the split south of Lake Baikal where one arm goes to one side of the lake and the other arm on the opposite side. These two arms join again north of the lake, thus forming a loop. At Irkutsk, near the lake, are volcanoes but how many I cannot say, though I have records of two.

A section of this belt offers the most dangerous volcanic menace of any belt in the world, because for a stretch it runs through a large live gas chamber at no great depth from the earth's surface. A serious belt block would blow this chamber out, scattering the mountains over it in all directions for many miles around and completely altering the topography of the country. I have advices from a competent geologist, who spent several years in this section that: "We have an extraordinary phenomenon here: a whole range of mountains will move several miles north, and after the eruption of some volcanoes further north, these mountains fall back into their normal places."

The Ural Mountain Belt

The Ural Mountain Belt passes from end to end under the Ural Mountains, crosses over the two divisions of the Great Central Belt, then, after devious windings through Persia, end up at the volcano at Kerman.



GAS BELTS OF THE ATLANTIC OCEAN

1. The Great Central Belt. 2. Appalachian-Scandinavian Belt. 3. Brazilian-West Indian Belt.

CHAPTER XIII

GAS BELTS OF THE ATLANTIC OCEAN

THERE are two great gas belts crossing underneath the bed of the Atlantic Ocean.

The Great Central Belt, marked No. 2 on the map, crosses underneath the Atlantic in two parallels or Divisions. The northern division leaves the point of Yucatan, goes under the major islands of the West Indies, then east under the ocean as far as the Azores Islands. Here it splits up into various parallels and enters Spain and Portugal as many branches.

The Southern Parallel comes out from under Honduras, Central America, and passes under the Atlantic to the Canary Islands. Here it splits and enters under the northeast corner of Africa in two or three minor parallels.

The Northern Belt was forged a long time before the Southern, and is miles nearer the surface than the Southern. The northern belt is quite near to the surface while the southern is deep down. Egyptian temple records recorded this fact—records that were written on stone or clay and not on papyrus, while Egypt was governed by hieratic heads and not by kings; Menes had not yet been born.

The Appalachian-Iceland-Scandanavian Belt crosses under the northern parts of the Atlantic; starting from Labrador it passes under the foot of Greenland, then under the Ocean to Iceland where there is a volcano on it called Hecla; from Iceland it passes on under the ocean to the northern part of Norway. At Iceland the belt sends off a shoot which goes down to the British Isles.

The Brazilian-Guiana-West Indian Belt comes out into the Caribbean Sea from under Guiana, and passes north under the Windward Islands. Some of these islands have volcanoes. Mt.Pélé is one of them. There is nothing under the Atlantic Ocean that can be compared to the Pacific Ocean as regards gas belt crossings, junctions and splits.

I will now survey the two areas where the two divisions of the Great Central Belt split before they enter Europe and Africa. My maps are purely conventional, free-hand sketches, to show the relative positions of the islands one to the other.

THE CANARY ISLANDS

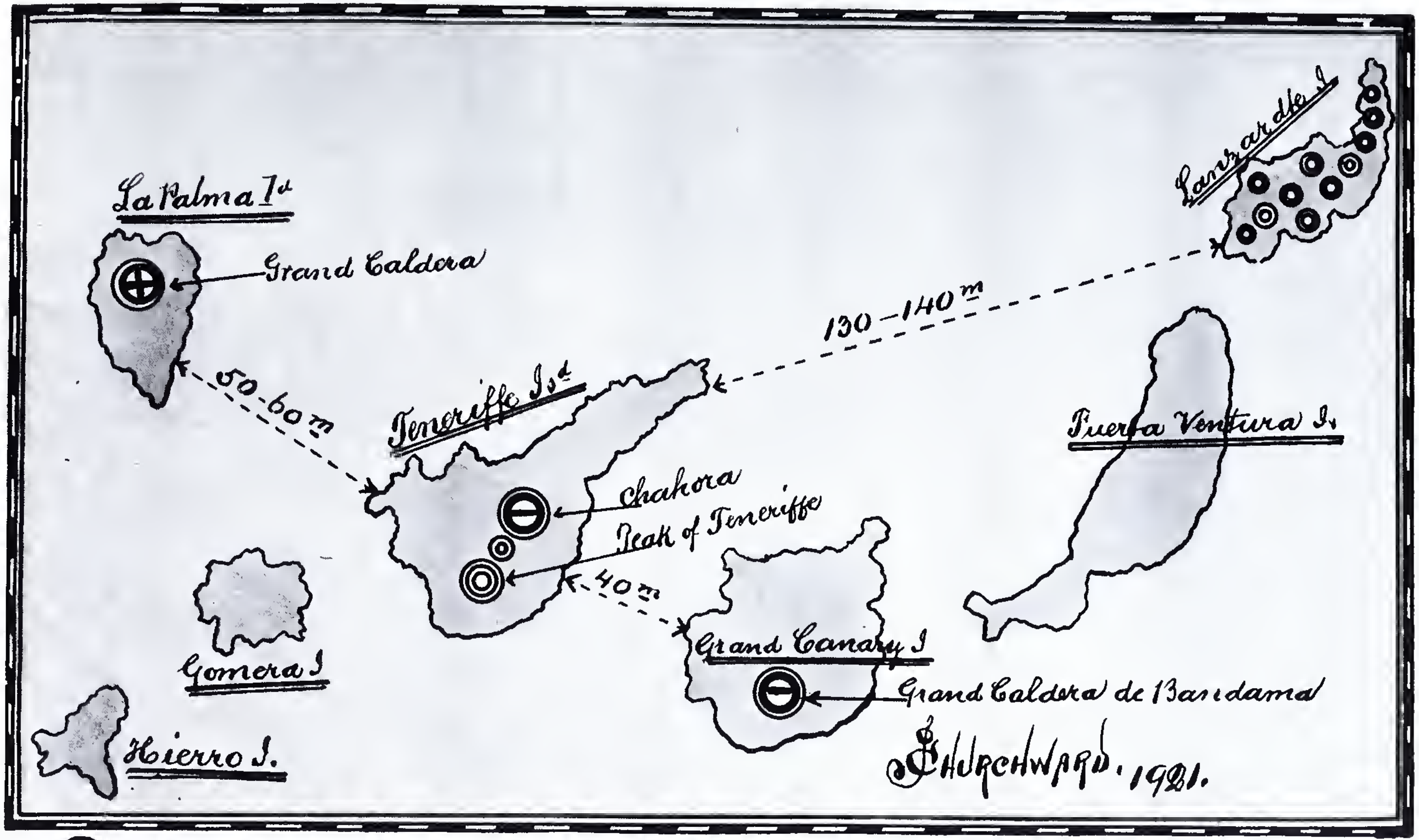
The Canary Islands lie over the southern parallel or division of the Great Central Belt, and are from 60 to 120 miles from the coast of Africa, and directly opposite to where the belt enters under Morocco.

The Canary Islands are of exceedingly great interest as a volcanic proposition. Four out of the seven islands have volcanic craters on them. Some of these craters were certainly ancient ones which never were in any way connected with gas belts; others are of doubtful origin, while others are decidedly modern and connected with the belt. The ancient ones point directly to the submergence of Atlantis, and to my mind it seems certain that they were instrumental in assisting in the operation of emptying out the gases from the chambers that upheld Atlantis.

The volcano best known in connection with the Canary Islands is the peak of Teneriffe, whose snow-capped head pierces the blue skies at an altitude of over 12,000 feet. The ones, however, that have the most interest for me personally are the Grand Caldera on La Palma Island, and the Grand Caldera de Bandama on Grand Canary Island.

TENERIFFE ISLAND

On this island is the celebrated volcano commonly called the Peak of Teneriffe. There appears to be no record of



⊕ Ancient Craters.

⊖ Doubtful whether ancient or modern.

◎ Modern Craters.

THE CANARY ISLANDS

this volcano having been in eruption through its regular crater for a long time, no doubt on account of the crater being badly choked. Many lateral ejections from its sides, however, are on record, some of a very violent character. The last one is recorded as having taken place in A.D. 1798. Should these lateral passages also get badly choked, the next outbreak might possibly blow the top of the mountain off, or open up another crater on a nearby mountain. It is an extremely bad sign when ejections come out from the sides of a volcanic mountain instead of through its regular crater. It indicates a bad block.

In 1909 there was great volcanic activity in the island of Teneriffe and an entirely new crater was opened up about 20 miles away from the peak. All this goes to show a very serious volcanic condition at the present time.

There are two very prominent volcanic peaks near the peak. One is called Pico Viejo, and the other, Chahorra. It is quite a question in my mind whether Chahorra is not an ancient volcano. It has all the earmarks of the ancient. Its crater is three-fourths of a mile in diameter, while against this its elevation is 10,500 feet above sea level. I can find no records that either of these two volcanoes have been known to have been in action.

La Palma Island

La Palma Island lies to the northwest of Teneriffe, the distance between the two islands being between 50 and 60 miles.

On this island there is certainly an ancient volcano, one that has never in any way been connected with the gas belt which now runs under the islands. It unquestionably antedates the gas belts.

This ancient crater is called *The Grand Caldera.* It measures between 4 and 5 miles across its mouth, and the crater itself has a depth of between 6,500 and 7,000 feet. An examination of the sides of this crater shows that originally it was not nearly so deep as it is now, evidences tending to show that the drop was not sudden but a gradual subsidence or sinking. What caused or is causing this sinking is an open question.

The Grand Caldera is one of the largest known ancient craters, its diameter exceeding anything found among the Pacific Islands, even including Kilauea in the Hawaiian Islands. While the Grand Caldera measures between 4 and 5 miles across its mouth, Kilauea measures only 3 miles.

There is a legend among the natives of La Palma that "the Peak of Teneriffe was merely thrown up by the Grand Caldera out of spite, during a most terrific upheaval." It does not take much thinking to see how this legend originated, and the manner in which it became a myth.

During the upheavals that occurred during the forging of the gas belt underneath the island, Teneriffe was thrown up, while the Grand Caldera, having no connection with the belt, remained quiet.

Grand Canary Island

Grand Canary Island lies to the southeast of Teneriffe, distant about 40 miles. On this island is another crater of doubtful vintage. It also has many marks of the ancient. It is called the Grand Caldera de Bandama. Its crater measures a mile across, with a depth of 1,000 feet. I can find no record of this volcano having been in action.

Island of Lanzarote

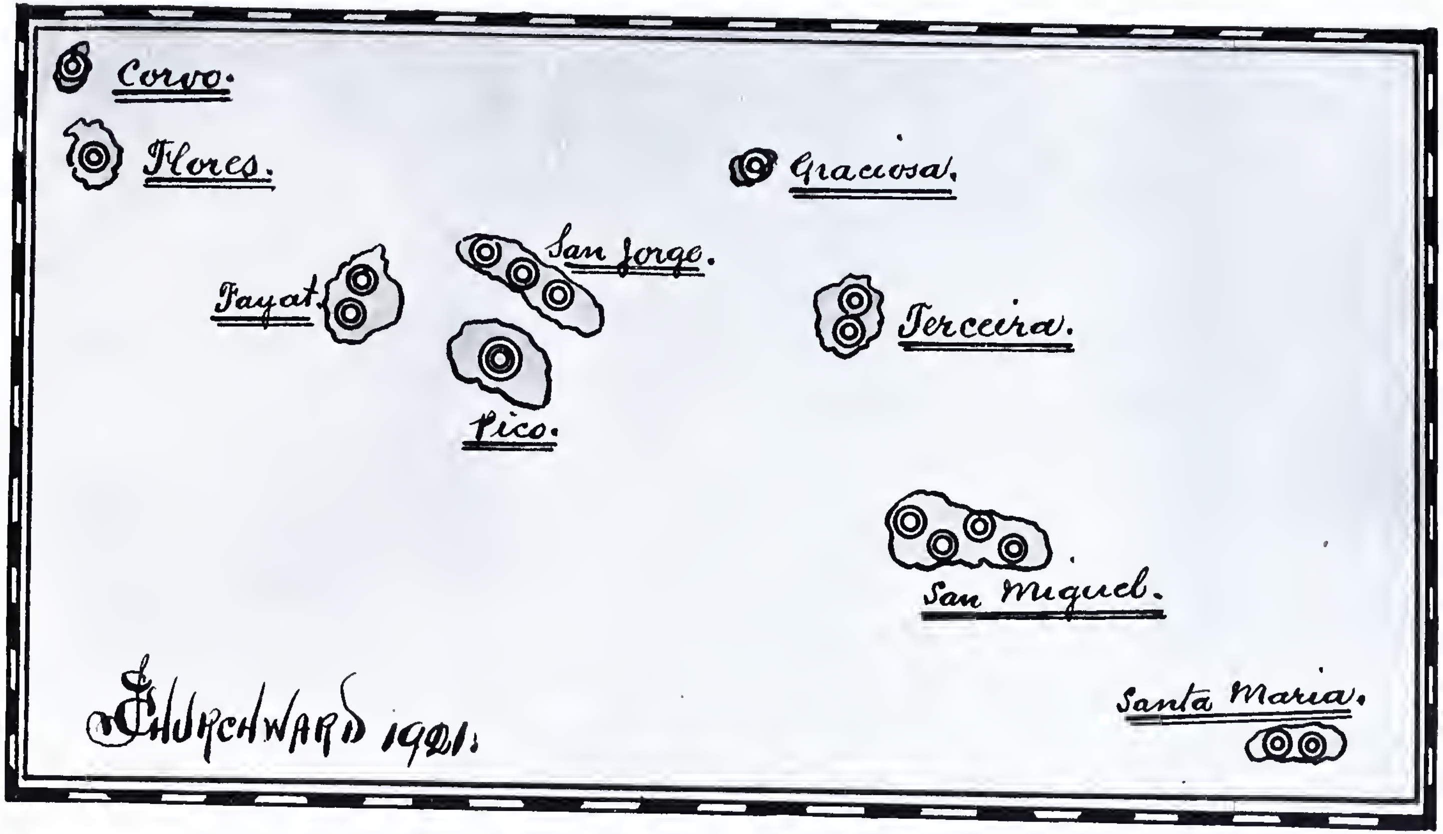
This island lies about 130 to 140 miles from the last, and slightly north of Teneriffe. During recent times Lanzarote has experienced greater volcanic activity than any other island of the Canary group. Between 1730 and 1737, no fewer than 25 new craters opened up, and in 1824 two others came into existence. None of these craters are over large; in fact, some are decidedly small. This is an indication that the belt under the Island of Lanzarote is near the surface. Bunches of small volcanoes, I have found, are only over belts that are close to the surface. There is nothing volcanic to note on either of the three other Canary Islands, Gomera, Hierro and Fuertavêntura.

I think it beyond question that some of the Canary Islands were once a part of Atlantis, so that Atlantis must have had a larger area than has been accredited to her, for her eastern boundary would have been within 60 or 70 miles of the African Coast. That the Grand Caldera helped to empty out the gases from underneath Atlantis, I feel sure. The modern volcanoes were made by the belt which was subsequently forged underneath the islands.

AZORE ISLANDS

The position of the Azore Islands is in the North Atlantic Ocean west of Spain and Portugal. They lie directly over the Northern Division of the Atlantic Division of the Great Central Belt. The belt splits under the Azores and enters Europe in branches formed by this split.

From the time of the discovery of the Azore Islands down to the 18th Century, they were subject continually to the most violent earthquakes and volcanic outbursts. They were of such frequent occurrence and so numerous that in such a work as this it would be impossible to recount them. Towns and villages were frequently destroyed, attended by frightful loss of life.



AZORE ISLANDS

Every island is a mass of craters which geologists tell us are extinct; but whatever geologists write or say I emphatically say no volcano is extinct which lies over a gas belt.

The biggest crater among the Azores is said to be Mt. Pico on Pico Island, whose altitude is 7,613 feet. Another stupendous crater is found on the island of Flores. This crater is called Morro Grande; its altitude is 3,037 feet. The little island of Carvo is only the top of a submarine volcanic mountain out of the water.

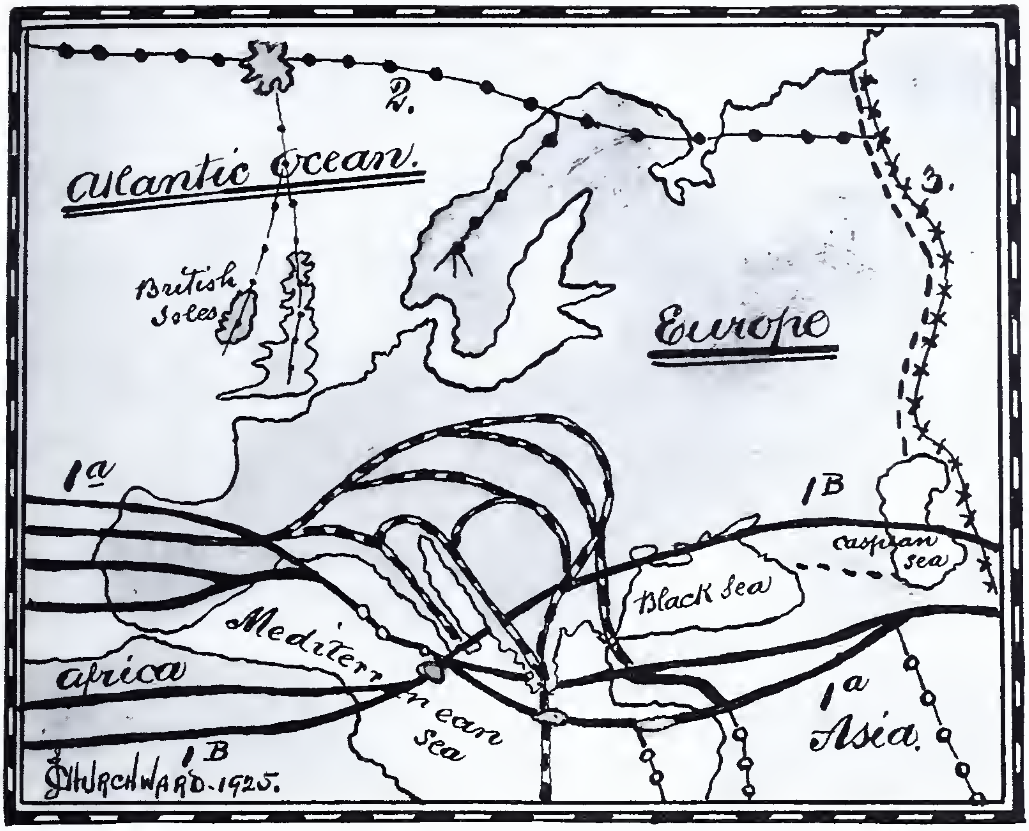
The two islands which have experienced the greatest volcanic activity in recent times are San Miguel and Santa Maria, the two most easterly islands.

I doubt very much that the Azores remained above the water when Atlantis went down, all phenomena point against this possibility. Every indication points to the probability that they were raised by the belt after Atlantis went down, when the belt reached the region of the Azores. One peculiar phenomenon points this way — the cavern *Furña de Ferñao Jorge.* This cavern was once a crater, and when the land re-emerged, the thrust of the gases was at the back of the crater. Consequently pivotal—thus tipping the crater over on its side, turning it from a crater into a cavern.

The split under the Azores is not on ordinary one where the belt forms two arms, for under the Azores the belt splits like fingers on a hand. This would account for the violent volcanic disturbances of the past and such may occur again in the future if a bad choke occurs.

KEY MAP TO EUROPE

This map, like all others which I have given, is purely a conventional sketch. It gives the *general* outlines of the European Gas Belts and the directions they are running.



KEY MAP TO THE GAS BELTS OF EUROPE

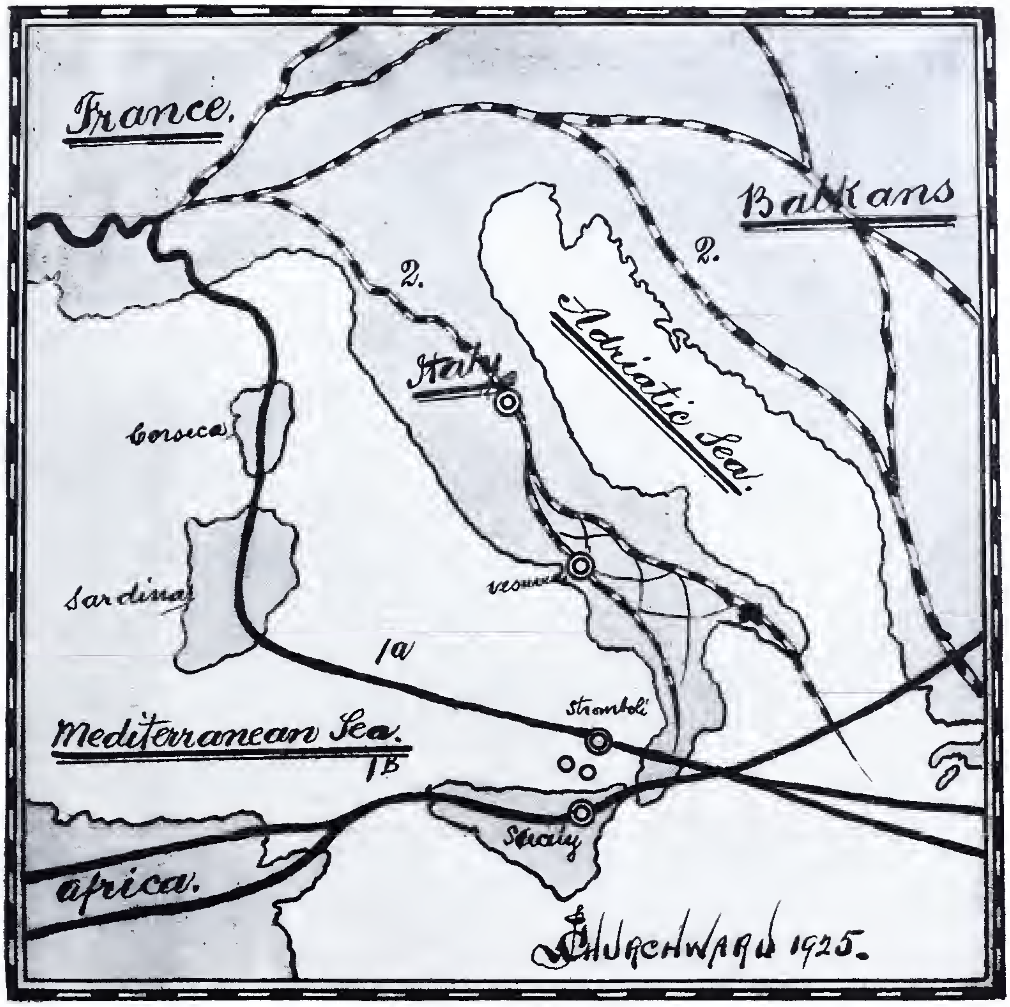
1a. Great Central Belt, Northern Division.
1b. Great Central Belt, Southern Division.
2. Appalachian—Scandinavian Belt.
3. Ural Mountain Belt.

THE GREAT CENTRAL BELT

The volcanic center of Europe is on the Great Central Belt and its ramifications.

I will start with the Northern Divisions of this Belt, marked 1A. They come into Spain and Portugal from the Azores in the form of either 3 or 4 parallels. In the South of France, one or two of the parallels take a northeasterly direction and then a southeasterly turn, forming a great bow. The ramifications are many, for they pass under every range of the Alps and Balkans. I will call this the Alps-Balkan Division. A branch from the bow runs down through Italy, and in the Balkans two main arms join at the north of Greece, then pass down through Greece and Crete as a single belt. Going back to Spain and Portugal, one arm comes under the south of Spain, then out under the Mediterranean; another arm leaves France, working south. It is joined by the arm from Spain before arriving at Sicily. It passes under Stromboli and the southern point of Italy, then on east. Before it arrives in Greece it splits, one arm going under Greece, the other under Crete. These two arms come together again at Erzerum in Asia Minor. It will be seen that this belt has two crossings, the first near the southern point of Italy, where it crosses, or rather is crossed by, the southern Division of the Central Belt going under it. The next crossing is in the south of Greece. Here it crosses the Alps-Balkan Division.

The southern division of the Central Belt, A2, after splitting into two arms, enters under the northeast point of Africa and comes out under the Mediterranean at the point where the shore line of North Africa takes a turn due south; just beyond this point the two arms join and pass under Sicily as a single belt; then it goes under the northern division into the foot of Spain under the sea to



EUROPE'S VOLCANIC DANGER SPOTS

1a. Great Central Belt, Northern Division.
1b. Great Central Belt, Southern Division.
2. The Alpine and Balkan Loops.

the Balkans. It there takes a northerly sweep, crossing two branches of the Alps-Balkan Belt. After leaving the Balkans it passes along the northern parts of the Black Sea, and from there under the Caucasian Mountains to the Caspian Sea, which it goes under, and from there into Persia.

THE URAL MOUNTAIN BELT

Has been already given among the Asiatic Belts.

THE VOLCANIC CENTER OF EUROPE

The volcanic center of Europe is where the Southern Division of the Great Central Belt passes under and crosses the Northern Division of the same belt, added to which one of the branches of the Alps-Balkan Belt joins one of them.

The Northern Division of the Central Belt, 1A, after leaving France goes to, and passes under, the Island of Corsica. From Corsica it goes to and under Sardinia. From Sardinia it passes to a group of volcanic islands to the north of Sicily-Stromboli, Lapari and Vulcano. From these islands its route is under the foot of Italy, then on to Greece. The Southern Division of the Central Belt, 1B, after leaving Africa, passes on to Sicily and under it from west to east, then under the food of Italy and on to the Balkans.

I have never been able to determine the exact spot where the two belts cross. It is either under the foot of Italy or just beyond.

A branch of the Alps-Balkan Belt, 2, comes down through the whole length of Italy, then joins the Northern Division of the Central Belt.

Thus in the immediate vicinity of southern Italy there is a great belt crossing and a junction.

The whole of the lower half of Italy is cut up into loops and parallels, one of the parallel loops is emptied by Vesuvius. Whether she clears out all the surrounding connections I cannot say, but as this part is very active, scientists on the spot could quickly and easily ascertain.

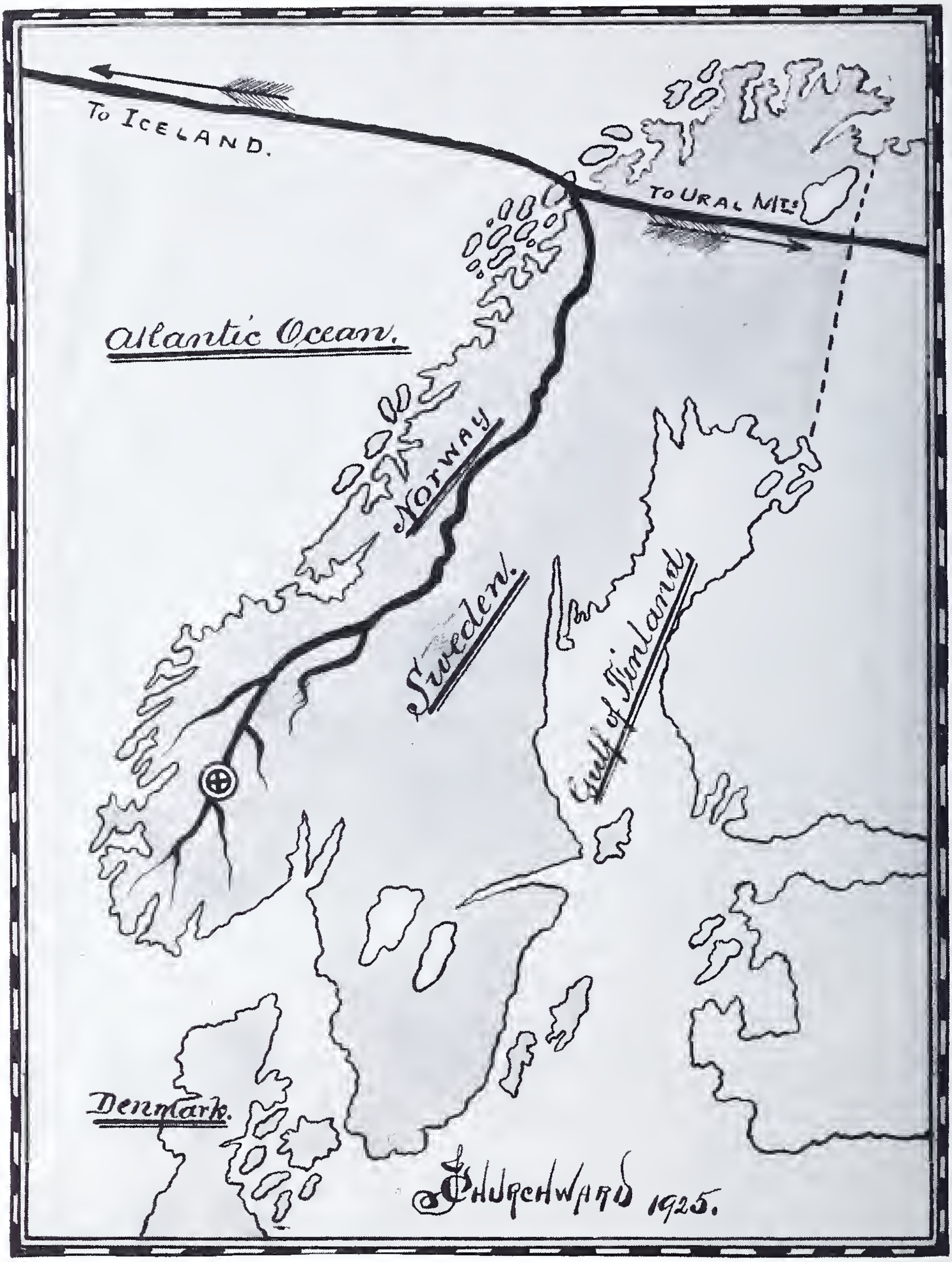
On the Italian Belt there is the celebrated volcano, Vesuvius, which empties out the gases of the Alps-Balkan Belts. On Stromboli Island is the great volcano, Stromboli, which empties out the gases of the Northern Division of the Central Belt from the Azores to Asia Minor. In Sicily there is the noted volcano, Etna, which empties out the gases of the southern division of the Central Belt from the Canary Islands to Asia Minor.

When one sees the lengths of belts which these three volcanoes take care of, it becomes no surprise or wonder at their activity, or the violence of some of their outbursts.

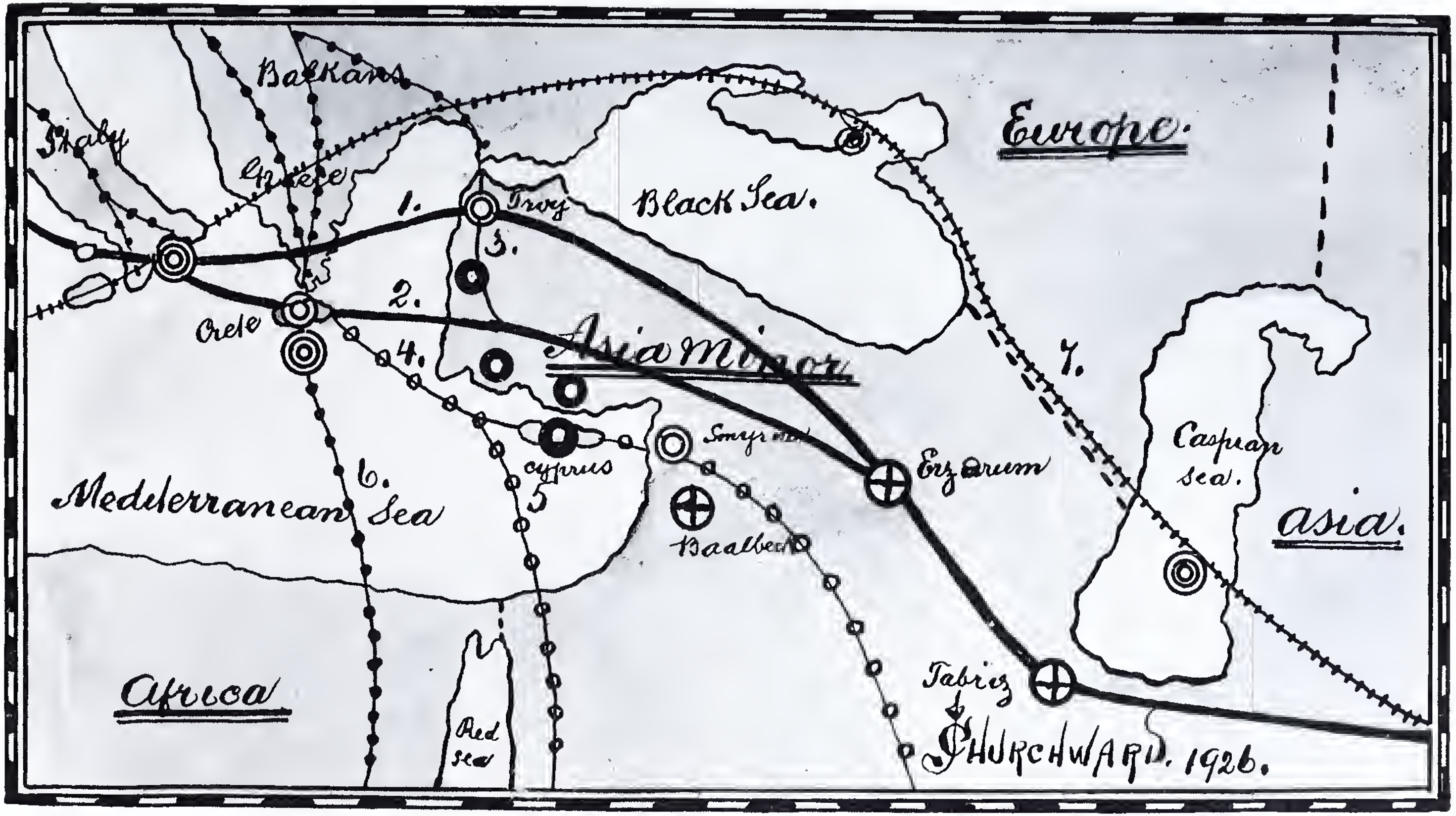
Scandinavian Spur Belt

The Scandinavian Belt is one of the great branches that are feeders to the Appalachian-Iceland-Scandinavian Belt. It runs down through Norway and Sweden. At what apparently is the southern end it splits into branches like fingers on a hand. Whether any or all of these branches pass down into Central Europe I cannot say but I think not. A violent earthquake occurred on this belt, centering at the point where I have placed a cross surrounded by a circle. This is at a junction where three of the lower branches meet.

I have no records of there ever having been an actual volcanic outburst in either of the Scandinavian countries.



THE SCANDINAVIAN SPUR BELT



ASIA MINOR

1. Great Central Belt, Northern Loop. 2. Great Central Belt, Southern Loop. 3. A Cross Belt connecting them. 4. The Persian Belt. 5. The Arabian Belt. 6. The East African Belt. 7. Great Central Belt, Southern Division.

CHAPTER XIV

ASIA MINOR AND VICINITY

PRE-HISTORIC CIVILIZATIONS DESTROYED BY GAS BELTS

NEXT to the last great Magnetic Cataclysm, the earth's most terrible tragedies have been the outcome of forging gas belts. Whole countries and civilizations have been wiped out, one after the other, over and over again. The monuments of these vast tragedies we find all over the world.

One of the areas that suffered severely was that around the eastern end of the Mediterranean Sea. Here no less than five belts go in stretches under the sea, which means that there were at least five great cataclysmic waves formed which rolled in over the adjacent country or countries and wiped out the population. That such waves are physically attested to today is confirmed by the three civilizations showing on Capital Hill, Smyrna, Asia Minor. As these were wiped out before the mountains were raised, it shows that they are 20,000 years or more old, and that they date back to the Tertiary Era. The character of the strata between them determines that their destruction was due to Cataclysms.

Ancient Greek and Egyptian records show that Asia Minor, Greece and Tyrrhenia were settled thousands of years before Lower Egypt. In fact, the first settlement in Egypt on the Nile was an accident. Thoth, fleeing from the wrath of King Chronos of Atlantis, went, so to speak, beyond civilization; that is, he went to a country that was unoccupied, so that he could not be found and overtaken. He and his companions formed the first settlement on the Nile Delta, at Sais. I have mentioned Greek records. The

Greeks themselves had no records of their own. What they did have were all destroyed. Their knowledge of the past came through their philosophers, who visited Egypt, became initiated into the Egyptian Sacred Mysteries and, from the Egyptian Temple records related to them by the priest-historians, brought back to Greece what they had learnt in Egypt. The cause of the Greeks' losing all of their ancient records will hereafter be shown. As an example, I will quote Plato's *Timaeus Critias,* which is a recount of the Greek philosopher, Solon, and the Egyptian priest-historian, Souchis, at Sais. " 'Oh, Solon, Solon, you Hellenes are but children and there never is an old man who is a Hellene.' Solon hearing this said, 'What do you mean?' 'I mean to say,' he replied, 'that in mind you are all young. There is no old opinion handed down among you by ancient tradition nor any science which is hoary with age, and I will tell you the reason of this. There have been and will be again many destructions of mankind arising out of many causes, the greatest have been brought about by fire and water. Whatever happened either in your country or ours or in any other region of which we are informed ...., all this has been written down, and is preserved in our temples. Whereas you and other nations provided yourselves with destructible records at the time. And then the Cataclysm sent by Heaven descends like a pestilence, leaving only a few of you who have no education or knowledge and then you have to begin all over again as children, commencing to learn. You know nothing of what happened in ancient times either among us or among yourselves. As for these geneologies of yours which you have recounted to us, Solon, they are no better than tales of children: for, in the first place you know of *one deluge only—whereas there have been a number of them.'*

" 'And in the next place you do not know that there dwelt in your land the fairest and noblest race of men which ever lived on the earth. You and all your people are now only a remnant. And this is not known to you because for many generations the survivors of that destruction kept no records.'

" 'Your *ancient* Athens was built 1,000 years before our City of Sais. Receiving from the Motherland and Hephaestus the forefathers of your race.' (Sais was the first city built in Egypt, about 14,000 B. C.)

" 'Afterwards there occurred violent earthquakes and cataclysms and in a single day all of your warlike men sank in a body, into the earth.' "

The greater part of these quotations are my own translations, for I have yet to find a single one of the old Greek works correctly translated into English. The reason is easy to understand. During the Archonship of Euclides, both the Greek language and the Greek alphabet were revised. Up to that time Carian was the foundation and principal part of their language, for it was their mother tongue. The Carian language is once removed from that of the motherland. Carian was the tongue they brought with themselves when they first came to Asia Minor. Then they used the Hieratic Alphabet of the motherland, but when the revision took place they only retained seven of the original characters. All others were either absolutely new, or old ones changed and modified.

The thousands of years that had elapsed since they first came to Asia Minor had brought about so many of the inevitable changes which distance and isolation foster, that the foregoing revision became a necessity.

While the various revisions were officially accomplished, the Philosophers could not forget their Carian.

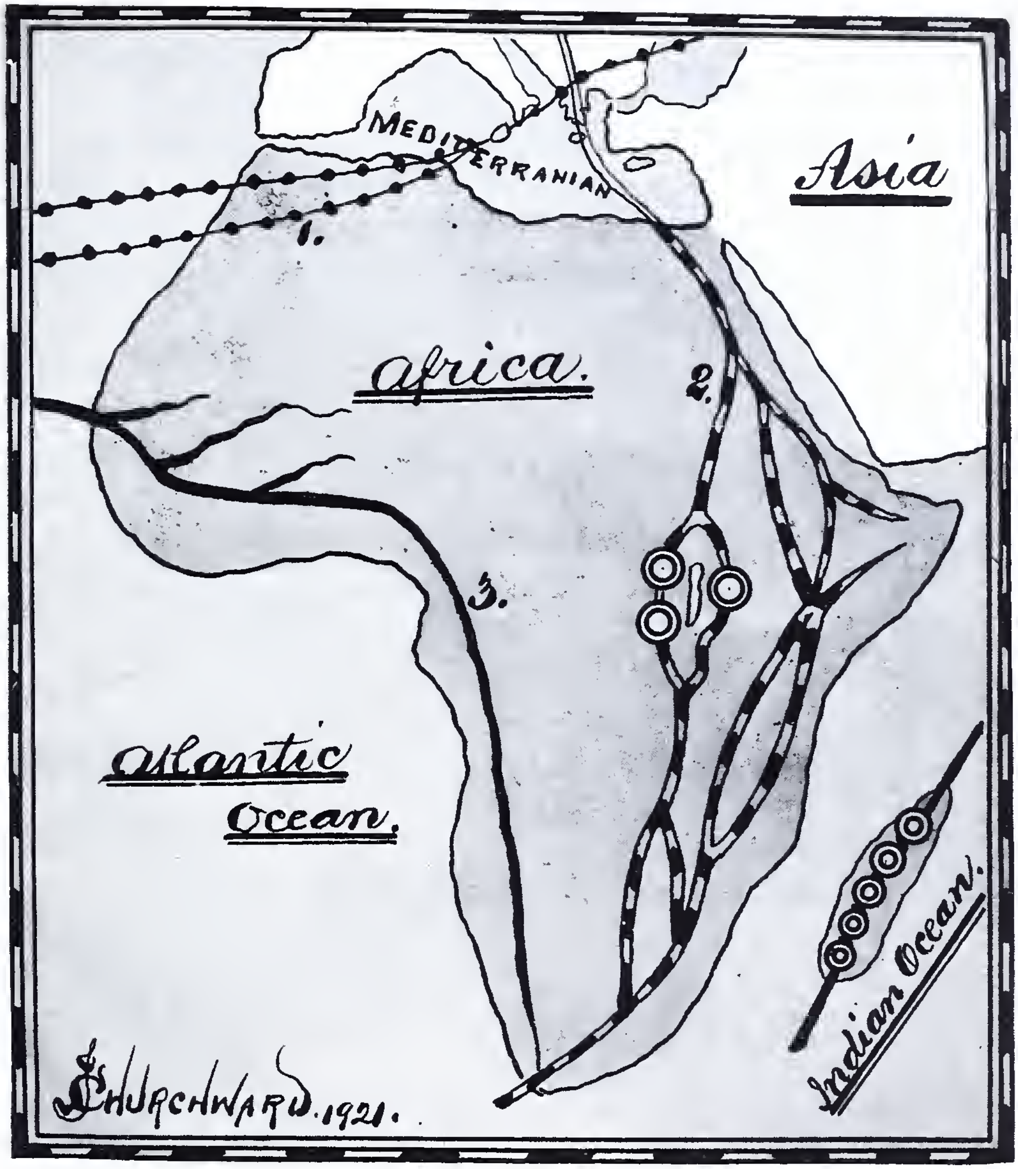
They retained and used many Carian words in their writings, so that one who knows the old Carian finds the works of the old philosophers permeated with Carian words. The full meaning of these words have not been known to modern translators into English, consequently they have been at a great disadvantage. As an example, I will take the works of the great Greek scholar, B. Jowett, of Oxford. While his Greek translations are the most accurate I have read, yet he has here and there a trip-up. What I have quoted from the *Critias,* Jowett translates: "And this was not known to you because for many generations the survivors of that destruction made no *sign.*" The word that *sign* is taken from actually goes back to the vocabulary of the motherland; it was continued with all its various meanings by the Carians or Karras. The word conveyed the meanings of *write, sign, record,* and *keep tabs,* dependent on how used. In this case the correct translation is *record.* The word *signature* finds its root in this word of the motherland, also to *sign* and to *inscribe.* Another example is: "Receiving from the earth—the seed of your race." The origin of this comes out of the ancient symbol, ▭, the letter M of the Hieratic Alphabet of the motherland. Mayax and Egypt pronounced Moo also Ma. It means: mother, earth, and land; by extension, country; a proper modern language translation of this is "Your forefathers came from the motherland direct." Here the word Moo, by extension or doubling or conjoining its meanings, becomes Mother-land.

All parts of the earth have suffered in the past from Cataclysms through gas belt forgings. There was the Motherland and Atlantis submerged with all thereon. Central America is known to have been overrun three times and most of the western parts of North America as well. Buried and submerged cities are constantly being found, grim monuments of the havoc and destruction caused by the gas belts.

Each of their lines throughout the world have been lines of calamity and destruction, loss of life and wiping out of civilizations.

Having made the bold statement that great civilizations existed around the eastern end of the Mediterranean 25,000 years ago, some of my readers may think I have unwittingly added a figure to my length of time, but let us calculate. The three civilizations shown on Capital Hill, Smyrna, existed before the mountains were raised and this phenomena is corroborated by Niven's Mexican Buried Cities, now at an altitude of 7,000 feet, and by Tiahuanaco in South America, at an altitude of 15,000 feet. All these are physical proofs. Two of them show by their coverings that cataclysms from the oceans destroyed them. The evidences continue, when we look at Schliemann's Ancient Troys, the Buried Cities of Crete, the Ruins of Baalbeck and the known submerged cities. The manner of the destruction of most of them is told in the Egyptian Temple Histories: namely earthquakes, volcanic fires and Cataclysms. But while these records tell us in what manner the destruction was caused, they do not so far tell us what caused the earthquakes and cataclysms. Other records do. It was the gases or fires of the underneath forging passageways to outlets, which I have termed gas belts. The Egyptians tell us that there was not one flood but many, and the Egyptian records are proved to be true by our finding today many of the cities thus destroyed.

I have sketched a little map as a guide for future reference when our archaeologists have got further along, and found some more of the old cities.



AFRICA

1. Great Central Belt, Southern Division.
2. The Great West African Belt.
3. The East African Belt.

AFRICA

Except around certain of the coasts and a litle inland, very little is known about Africa, and less about the volcanic conditions than anything else. The utmost that is known is that there are three separate and distinct gas belts running through parts of Africa. The southern division of the Great Central Belt goes under the northwest corner, from the Atlantic Ocean to the Mediterranean Sea.

A belt comes into west Africa from the Atlantic Ocean. Where it starts I do not know, neither do I know where it ends. It is well defined for several hundreds of miles at the commencement. Then follow broken sections of it on the western side of Africa down to the Cape of Good Hope.

By far the largest African Belt ranges along its eastern parts from Egypt to the Cape of Good Hope. It is a very large belt and has numerous ramifications along its whole course. Nothing is known about this immense belt except what has been supplied by hunters and explorers. A report published in Belgium, coming from the Congo, says there are three small active volcanoes near Lake Rudolph, the southernmost being at a place called Longendote.

A hunter of national fame reported that he came across an ancient crater *12 miles* in diameter. If this is a fact, then Africa can boast of having the largest ancient crater ever found in any part of the earth.

Many ancient craters have been discovered all the way down from German East Africa to the Cape. The diamond mines are ancient craters. Madagascar is a large island lying off the east coast of Africa. It has a range of mountains that run from one end of the island to the other. It is a continuous mass of volcanic peaks and each peak has its crater that once belched forth lava, fire and smoke. What this belt belongs to is an enigma.

As a volcanic proposition, Africa is an untilled field, virtually a virgin field, that awaits the cultivator.

THE END